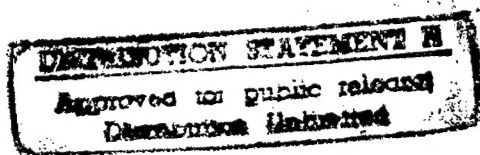
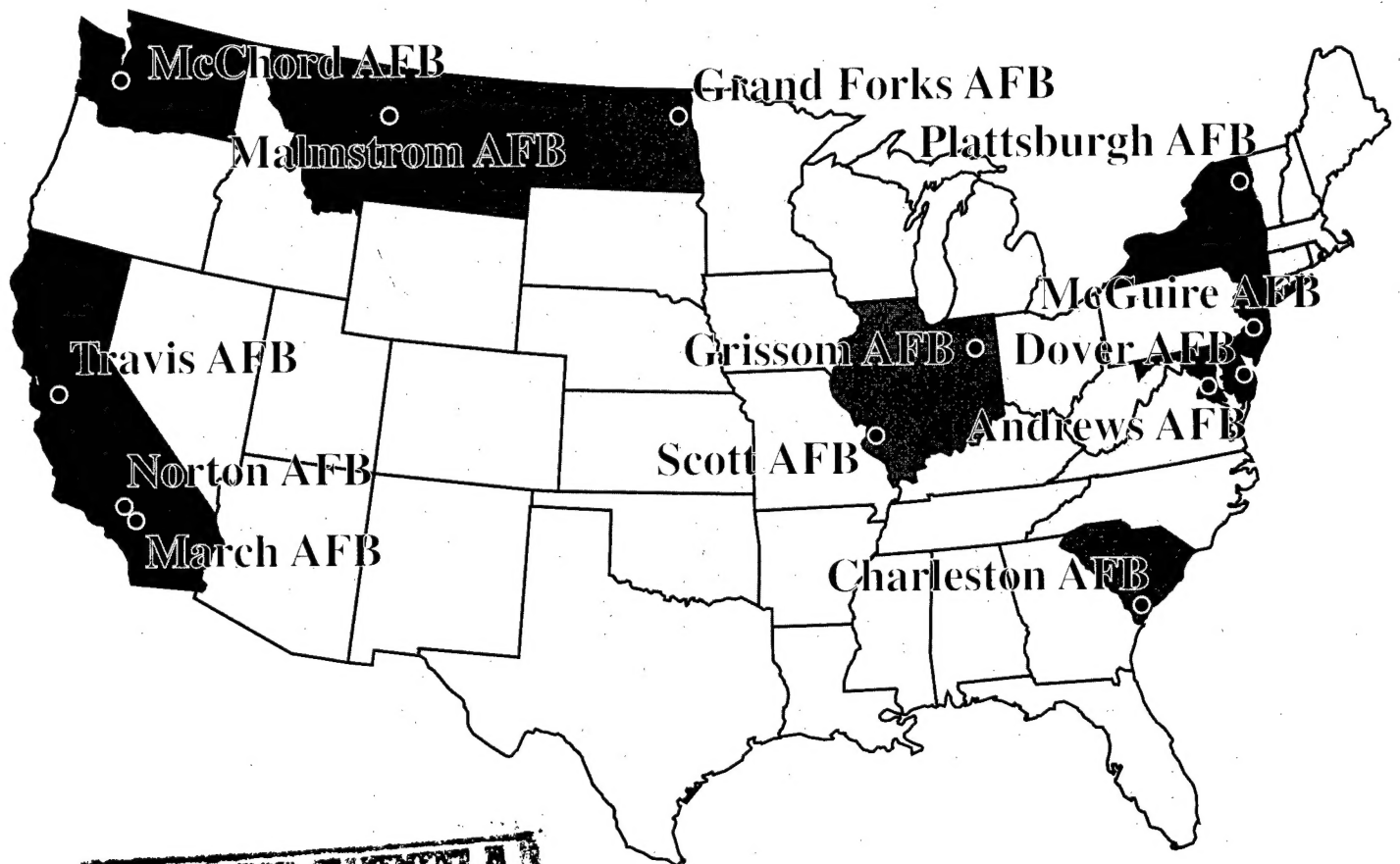


AIR MOBILITY COMMAND, ARCHAEOLOGICAL CURATION-NEEDS ASSESSMENT

Prepared for Headquarters Air Mobility Command



U.S. Army Corps of Engineers,
St. Louis District,

Mandatory Center of Expertise for the Curation and Management of Archaeological Collections



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CONTENTS

Figures	iv
Tables	v
EXECUTIVE SUMMARY	vii
1 INTRODUCTION	1
2 CHARLESTON AIR FORCE BASE AND NORTH AUXILIARY FIELD	5
3 DOVER AIR FORCE BASE	31
4 SCOTT AIR FORCE BASE	71
5 TRAVIS AIR FORCE BASE	83
6 FINDINGS SUMMARY	101
7 RECOMMENDATIONS	107
APPENDIX I—MASTER BIBLIOGRAPHY FOR AIR MOBILITY COMMAND INSTALLATIONS	111
APPENDIX II—SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY DRAFT <i>CURATION STANDARDS</i>	127
APPENDIX III—COLLECTION MANAGEMENT POLICY OF DELAWARE STATE MUSEUMS	129
APPENDIX IV—REPOSITORY FLOOR PLANS	151
APPENDIX V—U.S. ARMY CORPS OF ENGINEERS, ENGINEERING REGULATION 1130-2-433	159
APPENDIX VI—LIST OF SUPPLIERS FOR ARCHAEOLOGICAL AND ARCHIVAL REHABILITATION SUPPLIES	187
APPENDIX VII—GLOSSARY	191
APPENDIX VIII—EXAMPLES OF MEMORANDUMS OF UNDERSTANDING FOR CURATORIAL SERVICES	195
APPENDIX IX—HEADQUARTERS, AIR MOBILITY COMMAND NAGPRA SUMMARY LETTER	209

FIGURES

Figure 1.	Front entrance to Building 661.....	7
Figure 2.	View of side glass door with dead-bolt, double-cylinder lock.....	7
Figure 3.	Halon fire extinguisher located in Building 661.....	8
Figure 4.	Lateral file cabinet where associated documentation is stored.....	9
Figure 5.	Close-up view of associated documentation showing acidic folders, labels, adhesive contaminants, and folded oversized material.....	9
Figure 6.	Exterior view of the front of the Pendleton Building.....	15
Figure 7.	Exterior view of the Collections Facility on College Street	15
Figure 8.	Exhaust fan on south wall of the Collections Facility.....	17
Figure 9.	Equipment storage for Underwater Archaeology Division in the Collections Facility.....	18 19
Figure 10.	Intrusion alarm at front entrance of the Collections Facility.....	19
Figure 11.	Padlock on gate fence surrounding the Collections Facility.....	19
Figure 12.	Keypad security on door of the Collections Facility.....	19
Figure 13.	View of collections storage area in the Collections Facility.....	20
Figure 14.	Interior view of primary container holding North Auxiliary Field collections...	21
Figure 15.	View of file cabinet where North Auxiliary Field associated documentation is stored in the Pendleton Building.....	22 22
Figure 16.	Associated documentation and reports from North Auxiliary Field.....	22
Figure 17.	Exterior view of CEV/CES Building at Dover Air Force Base.....	33
Figure 18.	Entrance to offices of Maar Associates.....	38
Figure 19.	Entrance to laboratory and collections storage area.....	38
Figure 20.	Light falling from the ceiling in laboratory/collections storage area.....	39
Figure 21.	Exposed water pipes running along the ceiling in laboratory/collections storage area.....	39 39
Figure 22.	Electrical junction on ceiling in the laboratory.....	40
Figure 23.	Primary containers holding Dover Air Force Base collections at MAAR.....	41
Figure 24.	Close-up view of secondary container showing label.....	42
Figure 25.	File cabinets where Dover Air Force Base associated documentation is stored.....	43 43
Figure 26.	Room where maps and photographic records are stored.....	43
Figure 27.	Library where reports are stored.....	44
Figure 28.	Exterior view of Center for Archaeological Research.....	49
Figure 29.	Heat sensor in the second floor collections storage area.....	51
Figure 30.	Fire extinguisher on wall of collections storage area.....	51
Figure 31.	Shelving in collections storage area.....	52
Figure 32.	View of primary container showing label.....	53
Figure 33.	View of secondary container showing label.....	53
Figure 34.	Documents storage room.....	54
Figure 35.	Map cases where Dover Air Force Base material will be curated.....	55
Figure 36.	Exterior view of Island Field Archaeological Research Center.....	60

Figure 37.	View of the collections storage area at the Island Field Archaeological Research Center.....	61
Figure 38.	View of the heating unit in the collections storage area.	61
Figure 39.	Gate surrounding the facility grounds.	62
Figure 40.	Storage units and primary containers in the collections storage area.	63
Figure 41.	Secondary containers holding Dover Air Force Base collections.....	64
Figure 42.	Lateral filing cabinet housing documentation.....	64
Figure 43.	Flat map storage cases.....	64
Figure 44.	Processed slides in the photograph storage room.....	65
Figure 45.	Library at the Island Field Archaeological Research Center.....	65
Figure 46.	Exterior view of the west side of Building 530.	73
Figure 47.	Heat sensor on ceiling in Building 530.....	74
Figure 48.	Primary container holding the Scott Air Force Base artifact	75
Figure 49.	View of the secondary container that holds the Scott Air Force Base historic artifact.....	75
Figure 50.	Metal file cabinet where associated documentation is stored.....	76
Figure 51.	Front door to the Archaeological Research Services offices.....	85
Figure 52.	View of the mezzanine level collections storage area.....	85
Figure 53.	Heating unit in a corner of the mezzanine level at ARS.	86
Figure 54.	View of the temporary closet where the Travis Air Force Base collection is housed.....	87
Figure 55.	Travis Air Force Base collection and catalog.....	88
Figure 56.	Exterior view of the Anthropological Studies Center Collection facility.....	93
Figure 57.	Heating unit in the collections storage area.....	94
Figure 58.	Security system in the collections storage area.....	95
Figure 59.	View of the collections storage area.....	96
Figure 60.	Primary container showing severe compression damage.....	96
Figure 61.	View of nested newspapers inside secondary container.....	96

TABLES

Table 1.	Collection Summary.....	xi
Table 2.	Percentages of Material Classes in Charleston Air Force Base Collections.....	14
Table 3.	Percentages of Material Classes in Dover Air Force Base Collections.....	32
Table 4.	Percentages of Material Classes in Dover Air Force Base Collection at MAAR Associates.....	37
Table 5.	Percentages of Material Classes in Dover Air Force Base Collection at Center for Archaeological Research at the University of Delaware at Newark.....	48
Table 6.	Percentages of Material Classes in Dover Air Force Base Collections at Island Field Archaeological Research Center.....	59
Table 7.	Summary of Collections by Location.....	101
Table 8.	Presence/Absence of Repository Infrastructure Controls.....	103
Table 9.	Percentages of Material Classes in AMC Collections.....	105

EXECUTIVE SUMMARY

PROBLEM

Federal archaeological collections are a significant and non-renewable national cultural resource; however, curation of these materials has been largely substandard or ignored for over fifty years. The result has been a steady deterioration of these resources, which include many priceless objects of long-vanished cultures. A significant number of these precious collections of our nation's heritage have been abandoned in the attics, basements, and closets of countless storage facilities across the United States. The improper care and subsequent deterioration of these collections not only violates the laws under which they were recovered but also prevents educational and scientific use. Unfortunately many valuable collections of North American prehistory and history have been lost, and the considerable financial investment by the American public in archaeological recovery squandered. A substantial portion of the national cultural treasures, however, still exist. Given proper housing and care, these non-renewable resources can be saved for future generations. The U.S. Air Force Air Mobility Command's preservation ethic is characteristic of the Air Force's long-term interest in archaeological collections management.

BACKGROUND

Department of Defense installations are responsible for the management of archaeological and historical resources that are located on and recovered from their properties. As mandated by Federal law, installations are required to ensure that archaeological materials and their associated records are properly curated in perpetuity. Unfortunately, funding shortfalls, lack of consistent national policy, and a misunderstanding of the magnitude of the problem have prevented compliance.

Collections recovered from Department of Defense (DoD) installations are public property, the result of many years of archaeological research and the expenditure of millions of Federal dollars. A Federally sponsored mitigation program usually provides for the recovery of materials from archaeological sites, the analysis of recovered items, the publication and circulation of a final report, and the placement of collections in storage facilities for preservation, display, or future study. In the past, Federal agencies gave little attention to the maintenance of collections once salvage programs were completed. Through the years, most collections have been

stored free of charge by universities and museums. Inadequate funding and failing facilities now seriously hinder these institutions' ability to adequately care for archaeological collections and associated records.

At the request of Headquarters (HQ), Air Mobility Command (AMC), the U.S. Army Corps of Engineers, St. Louis District performed a curation compliance assessment of 13 AMC bases (listed below). The project was funded by AMC, and Robin Burgess was the project manager at HQ AMC. Work was performed between August 1993 and February 1994.

1. Andrews Air Force Base, Maryland
2. Charleston Air Force Base, South Carolina
3. Dover Air Force Base, Delaware
4. Grand Forks Air Force Base, North Dakota
5. Grissom Air Force Base, Indiana
6. McChord Air Force Base, Washington
7. McGuire Air Force Base, New Jersey
8. Malmstrom Air Force Base, Montana
9. March Air Force Base, California
10. Norton Air Force Base, California
11. Plattsburgh Air Force Base, New York
12. Scott Air Force Base, Illinois
13. Travis Air Force Base, California

Of the 13 Air Force bases, archaeological collections had been recovered from only four—Charleston, Dover, Scott, and Travis—at the time of this project. Other installations, however, had pertinent reports, and the reports generated from work on all 13 installations are included in the bibliography. At the time of this evaluation archaeological surveys were being conducted at Andrews, Grissom, McChord, McGuire, Malmstrom, and Plattsburgh Air Force bases, but these projects were not included as part of the present scope of work.

Nine (9) distinct collections and 65 unique reports pertaining to archaeological investigations on Air Mobility Command installations were identified. The nine (9) facilities curating the identified collections were inspected and evaluated, in accordance with protocols established by the TCX and guided by 36 CFR Part 79, during the course of this project. Inspections produced evidence documenting the widespread deterioration and neglect of many of the AMC archaeological collections.

FINDINGS

Status of Physical Facilities

(1) Repository Adequacy: Air Mobility Command collections presently are curated in nine (9) facilities in four (4) different states.

- a. Charleston Air Force Base, South Carolina
- b. South Carolina Institute of Archaeology and Anthropology, Columbia
- c. Dover Air Force Base, Delaware
- d. Maar Associates, Newark, Delaware
- e. University of Delaware, Center for Archaeological Research, Newark
- f. Island Field Archaeological Research Center, Dover, Delaware
- g. Scott Air Force Base, Illinois
- h. Archaeological Resource Services, Petaluma, California
- i. Sonoma State University, Anthropology Studies Center, Rohnert Park, California

These nine (9) repositories were all visited, inspected, and are described below. A tenth repository—the Illinois State Museum—is included in this analysis because it is the recommended repository for the Scott Air Force Base collection, but at the present time it is not curating any collections from Air Mobility Command installations.

None of the 10 repositories fulfill all of the standards mandated by 36 CFR Part 79 (Curation of Federally-Owned and Administered Archeological Collections), a Federal regulation (1991) that establishes professional standards for the management and care of all Federal collections. However, 40% (four) of the repositories meet the minimum requirements.

(2) Repository Maintenance: Most of the facilities that were inspected receive some measure of service, though on an irregular basis. At most facilities offices were cleaned by professional companies, but the collections storage areas were cleaned on an as-needed basis by the curatorial staff. At one repository the collection was coated in dust, a condition that accelerates the deterioration of archaeological materials. In addition, 30% (three) of the repositories have collections storage areas that contain extraneous materials such as excavation equipment, supplies, and excess furniture, an unacceptable practice in professional collections management facilities.

(3) Environmental Controls: Environmental monitoring and adequate environmental control—appropriate, stable temperatures and humidity, and adequate humidity and temperature monitoring—are crucial for

the long-term preservation of collections. Only 10% (one) of the repositories examined contain appropriate environmental controls. Most facilities are heated and air conditioned; however, temperature and humidity fluctuations outside the acceptable range dictated by the American Association of Museum standards have occurred at most of the repositories. Five of the repositories listed environmental control and monitoring as one of their most pressing problems; one that, according to the curatorial staff, these facilities would rectify as soon as funding was available. A realistic assessment of these expensive air-handling devices being installed at any of these institutions in the near future seems remote given current budget constraints.

(4) Security: Only 50% (five) of the repositories meet the Federal standards for the safeguarding of archaeological collections, which includes such measures as intrusion alarms, motion detectors, limited access, absence of windows in collections storage areas, and security on doors. All 10 repositories were locked, and there were no documented cases of loss from unauthorized entry, although the potential for such a loss exists at 30% (three) of the examined institutions.

(5) Fire Detection/Suppression: Fire—a major hazard to any museum collection—can not be adequately detected or suppressed in at least 40% (four) of the repositories examined. Furthermore, only 40% (four) of the repositories contained fire detection devices, although all had at least one fire extinguisher in the collections storage area, protection that is inadequate for collections. Finally, only one (1) facility in the 10 examined contained a sprinkler system.

(6) Pest Management: A professional pest management control program is crucial to the long-term survival of many archaeological collections and all associated records. Only 50% (five) of the repositories have a rudimentary pest management program, which consists, in most instances, of controlling insects with sticky traps and rodents with standard mouse traps. In addition, these five repositories are sprayed on a regular basis. The remaining five repositories have some type of pest management system, which ranges from spraying to trap baiting on an as-needed basis. However, one can not conclude that the collections and records in these institutions are receiving the pest management they require.

Status of Artifacts

Air Mobility Command archaeological collections consist of approximately 19 ft³ of material in nine distinct collections (see Table 1). One collection consists exclusively of historic materials, four collections consist solely of prehistoric materials, and four collections consist of both prehistoric and historic materials. At the present time, no artifact collections fully meet existing Federal requirements for archaeological curation. Each of the nine collections identified in this study will require at least partial rehabilitation to meet current Federal standards.

Table 1.
Air Mobility Command Collection Summary

Installation/ Repository	Size of Collections		Status ¹ of Artifacts/Records
	Artifacts	Records	
Charleston AFB	none	0.5	NA ² /poor
SCIAA	2.3	6.25	good/fair
Dover AFB	>1	0.25	poor/poor
MAAR	6.5	0.5	good/fair
CAR	1.0	0.5	fair/fair
Island Field	>1	none	good/NA
Scott AFB	>1	0.75	poor/poor
Travis AFB	none	none	NA/NA
ARS	1.0	1.5	fair/poor
Sonoma State	7.0	0.1	fair/poor
TOTAL	18.8	10.35	

¹ If the status is judged poor, complete rehabilitation is necessary to comply with TCX standards and 36 CFR 79. If the status is judged fair, a significant amount of rehabilitation is necessary for compliance, but minimal actions have been made in an attempt to comply with the standards of 36 CFR 79. If the status is judged good, a minor amount of rehabilitation is required for compliance.

² NA indicates that there are no collections present at this repository; therefore, the status is not applicable in this case.

Overall, the primary containers, receptacles that house a group of artifacts, consist of various-sized acidic cardboard boxes, some of which are overstacked, overpacked, compressed, or torn. Label information is inconsistent, and many primary containers include only rudimentary label information, conditions that must be corrected in order to comply with 36 CFR Part 79.

Seventy percent (70%) of the secondary containers, the largest receptacles within the primary containers, are acidic paper bags and, as such, are an unacceptable museum storage media. Secondary container labels consist of (1) direct-labeled, acidic paper tags or (2) information written directly on the secondary containers. The wide variety of non-archival secondary containers are contributing to the deterioration of many elements of these valuable collections.

Status of Human Skeletal Remains

None of the Air Mobility Command archaeological collections evaluated in this study contained human skeletal remains.

Status of Documentation

Records associated with archaeological investigations on Air Mobility Command installations encompass approximately 10 linear feet (including 65 reports) in eight distinct collections at eight repositories. Types of documentation identified during the assessments include field records, reports, electronic media (e.g., computer disks), curation records, photographic records, correspondence, proposals, analysis records, line drawings, maps, and oversized maps. Not all collections contain a full range of each documentation type. Associated documentation housed at the individual installations are used in the day-to-day operations of each installation. While these files are still in use, they are cared for in the manner dictated by Air Force regulations. When these files are retired, however, they should be integrated into the permanent historical record and should be curated according to the dictates of 36 CFR Part 79.

In many instances, associated documentation was never submitted by the contracting archaeologist or agency, and the installations have not requested their submission. This may be the single, most-glaring problem with AMC collections. If all significant records of a project are not curated, then the full range of documenting media is lacking

and the collection is incomplete. It is clear that collections managers and archaeologists have not always considered associated documentation to be a part of the archaeological collections, and therefore, worthy of curatorial care. The result is that records for some of the collections can not be located, a problem that should be aggressively addressed.

Professional archival-quality practices were noted at 20% (two) of the repositories. Original paper records have not been duplicated at any of the repositories, and in some cases, photographic materials have not been isolated or stored in chemically inert sleeves. Records are housed in fire-proof cabinets at only one repository. Most documentation collections are kept in standard metal file cabinets, and the documents have been placed in acidic manila folders and labeled directly in non-archival ink or marker. All eight documentation collections identified in this study will require at least partial rehabilitation to meet Federal standards. Associated records, which are an integral part of these collections, are receiving the worst treatment and are in the greatest danger of being lost due to rapid and irretrievable deterioration. Action to correct this should be taken immediately.

Status of Repository Management Controls

Forty percent (four) of the facilities have accession records for the collections for which they are responsible. None of the bases have accession records because the Air Force deems it unnecessary for collections they own. Fifty-six (56%)—five—of the nine facilities have written records of where their collections are located within the repositories, but only 40% (four) have ever conducted an inventory of the collections in their care. Basic policy and procedure statements for artifact curation, records management, inventories, and deaccessioning are present at 67% (six) of the curation facilities. Written policies regarding loan procedures are present at only 22% (two) of the repositories. Forty percent (40%)—four—of the facilities maintain minimum standards for the acceptance of collections, while only 20% (two) have field guidelines for the curation of archaeological materials. Only one of the repositories has a published guide to the archaeological collections in their care. Sixty percent (60%)—six—of the 10 facilities employ some form of computer data-base management for the collections in their care. Given the above, it is clear that the collections are at great risk, and most are not being cared for in a manner acceptable to the provisions of 36 CFR Part 79.

CORRECTIVE ACTIONS

A number of corrective actions are necessary to bring Air Mobility Command installation collections, and those facilities housing them, into compliance with 36 CFR Part 79. General recommendations include the following.

- (a) Coalesce collections into a repository located in the same state as the installation.
- (b) Identify and systematically inventory all archaeological collections and associated records recovered from Air Mobility Command Installations using one uniform system.
- (c) Rehabilitate and/or conserve artifact collections, and archivally preserve all documentation and reports.
- (d) Develop and implement uniform inventory procedures.
- (e) Develop and implement formal archives management programs.

If implemented, these corrective measures will permit Air Mobility Command to meet the minimum Federal requirements for the adequate long-term curation of archaeological collections. By adopting this approach, Air Mobility Command has the opportunity to implement a curation program that will serve its needs well into the next century.

CONCLUSIONS

Attainment of each recommendation may not be possible immediately; however, because (1) the collections are rapidly deteriorating in the current storage environments and (2) there is no long-term, consistent management plan for the proper curation of archaeological collections and associated documentation, some action is necessary. These Federal collections provide raw archaeological data, and if not properly cared for soon, they will lose their educational and research value and potential. Any progress will insure that these collections will be more adequately preserved than they are now and that they will be useful to future generations.

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INTRODUCTION

Installations under the command of the Headquarters of the U.S. Air Force's Air Mobility Command (HQ AMC) are responsible for archaeological artifact collections and accompanying documentation (hereafter referred to as archaeological collections) recovered from their bases, which are stored in nine facilities in four different states. This responsibility is mandated through numerous legislative enactments, including the Antiquities Act of 1906 (P.L. 59-209), the Historic Sites Act of 1935 (P.L. 74-292), the Reservoir Salvage Act of 1960 (P.L. 86-523), the National Historic Preservation Act of 1966 (P.L. 89-665), and the Archaeological Resources Protection Act of 1979 (P.L. 96-95). Executive Order 11593 (U.S. Code 1971) and amendments to the National Historic Preservation Act in 1980 provide additional protection for these resources. Preservation of Federal archaeological collections is secured in the implementing regulation 36 CFR Part 79, Curation of Federally-Owned and Administered Archaeological Collections. Additionally, the U.S. Army Corps of Engineers is the only Federal agency that possesses strict curation standards for archaeological materials under their care. U.S. Army Corps of Engineers Engineer Regulation 1130-2-433, which was implemented in April 1991, serves as a standard for long-term archaeological curation (Appendix V).

In 1990 the Native American Graves Protection and Repatriation Act (P.L. 101-601)—NAGPRA—was enacted (1) to identify the Federal agencies with archaeological collections that contain Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony and (2) to forge agreements between Federal agencies and Native American Indian Tribes and Native Hawaiian organizations on the repatriation or disposition of these remains and objects. All Federal agencies are required to meet mandated deadlines for compliance with NAGPRA. A summary of unassociated funerary objects, sacred objects, and objects of cultural patrimony was required by November 16, 1993 (see Appendix IX). Additionally, an inventory of human remains and associated funerary objects is mandated by November 15, 1995.

In the summer of 1993, as the first step in complying with 36 CFR Part 79 and NAGPRA, Robin Burgess, Headquarters Air Mobility Command cultural resource manager, contacted the U.S. Army Corps of Engineers' Technical Center of Expertise in Archaeological Curation and Collections Management (TCX) in St. Louis to discuss an interagency agreement that would address these requirements. After a series of consultations with Michael K. Trimble, chief of the Curation and Archives Analysis Section and the TCX, an approach was recommended that would identify and evaluate the collections from 13 AMC installations in accordance with the Federal curation requirements of 36 CFR 79. Data gathered by the TCX would also provide HQ AMC with NAGPRA-compliance information. A memorandum of agreement was signed between the two parties that empowered the St. Louis District to conduct curation-needs assessments at selected AMC installations. According to this agreement, the TCX would provide HQ AMC with an inventory of their archaeological collections that would outline their curation needs. Concurrently, collections managers would receive a plan addressing their specific curation needs and, when appropriate, the corrective actions required to bring their facility into compliance with 36 CFR Part 79.

In the Interagency Agreement, the St. Louis District agreed to provide:

1. professional and technical services to HQ AMC for the inspection and inventory of archaeological collections in selected repositories;
2. information that would enable HQ AMC to fulfill the requirements of the November 15, 1993, NAGPRA deadline;
3. a final report that (a) details the results of the inspection and evaluation, (b) addresses the physical description of all repository facilities, recovered artifact collections, and associated documentation collections, (c) makes recommendations for compliance with the requirements of 36 CFR Part 79; and
4. a master bibliography of reports associated with archaeological investigations performed on AMC properties.

As part of the curation-needs assessment personnel from the St. Louis District would visit the funding agency to examine any reports, records, or inventory data associated with Federal collections and would develop an annotated bibliography of reports, which includes a list of the associated collections and their present location.

METHODS

Ten (10) facilities were evaluated in the course of the curation-needs assessment—Charleston Air Force Base, the South Carolina Institute of Archaeology and Anthropology, Dover Air Force Base, the University of Delaware's Center for Archaeological Research, Maar Associates, the Island Field Archaeological Research Center, Scott Air Force Base, the Illinois State Museum, Archaeological Resource Services, and the Anthropological Studies Center at Sonoma State University. Travis Air Force Base was not evaluated because no collections (archaeological materials or associated documentation) are curated there. The following schedule reflects the time allocated to information gathering at each facility.

July 19, 1988—Illinois State Museum Research and Collections Center

September 14, 1993—Archaeological Resource Services

September 15, 1993—Sonoma State University, Anthropological Studies Center

October 18, 1993—Dover Air Force Base and Charleston Air Force Base

October 19–20, 1993—South Carolina Institute of Archaeology and Anthropology

October 19, 1993—University of Delaware, Center for Archaeological Research

October 20, 1993—MAAR Associates

October 21, 1993—Island Field Archaeological Research Center

Pre-Fieldwork Investigation

Assessment of each facility's compliance with 36 CFR Part 79 included the following four items.

1. A (National Park Service) National Archeological Database and a general records search were performed for each of the 13 AMC installations.
2. Each funding agency was visited in order to examine all reports, records, and inventory data associated with AMC archaeological collections and to compile an annotated bibliography of reports, which would include a list of associated collections and their present location.
3. Initial contacts were made with all personnel and agencies with knowledge of AMC archaeological collections.
4. From these initial contacts, a list was developed of all contracting agencies and repositories associated with the recovery or curation of materials from AMC installations.

Field Inspection and Assessment of Repositories and Collections

1. A survey questionnaire soliciting information on repositories, artifact collections, and associated documentation was completed for every facility involved with the curation of archaeological collections from a given installation.
2. A building evaluation form—addressing structural adequacy, space utilization, environmental controls, security, fire detection/suppression, pest management, and utilities—was completed for every facility and satellite repository involved with the curation of archaeological collections recovered from AMC installations. This data, gathered both by observation and through discussion with collections managers, allowed for a determination of whether or not the facility was in compliance with the requirements for repositories as specified in 36 CFR Part 79.
3. An examination of all project and site reports, administrative files, field records, curation records, electronic media, and photographic records was performed to determine their presence or absence, the total linear feet of each type of documentation, the physical condition of the containers and the records, and the overall condition of the storage environment. The determination of whether or not the facility was in compliance with the archives management requirements specified in 36 CFR Part 79 is based on this research.
4. An examination and evaluation of all artifact collections included an assessment of (a) primary and secondary containers, (b) the degree of container labeling, (c) the extent of laboratory processing,

(d) the material classes included in each collection, and (e) the condition of any human skeletal remains. Primary containers—e.g., acidic and acid-free cardboard boxes; cardboard, metal, and wooden trays; and wooden and metal drawers—are the receptacles that house an individual artifact or group of artifacts. Secondary containers—e.g., acidic paper bags, plastic sandwich bags, plastic zip-lock bags, glass jars, film vials, aluminum foil, and small acidic and acid-free cardboard boxes—are the largest receptacles for artifacts within the primary containers.

NAGPRA-Compliance Assessment

No human skeletal remains were noted by the assessment teams in any of the AMC collections. This information was forwarded to HQ AMC and was used to fulfill the November 16, 1993, NAGPRA requirements.

Report Preparation

1. A written report detailing the results of the curation-needs assessment includes estimates of the sizes of the collections and their conditions and descriptions of the facilities.
2. Recommendations for rehabilitation of the facilities and/or the collections, according to standards set forth in 36 CFR Part 79 are provided to HQ AMC by the TCX.

CHAPTER SYNOPSIS

Chapters 2–5 outline a detailed examination of the state of Air Mobility Command archaeological collections at Charleston Air Force Base, South Carolina; Dover Air Force Base, Delaware; Scott Air Force Base, Illinois; and Travis Air Force Base, California. The report format includes an executive summary of each installation and its collections, a detailed examination of the installation, and an analysis of all the universities, museums, and contractors who are curating collections from that specific installation.

Although none of the repositories fulfill all of the standards mandated by 36 CFR Part 79 for curating Federally owned archaeological collections, approximately one-half meet some of the stated regulations (e.g., proper environmental controls, security, and fire safety). Only 20% (two) of the 10 repositories employ full-time curators for archaeological collections. Existing conditions at the repositories described in this report unfortunately are the standard for most archaeological-collections repositories in the United States. Funding shortfalls, lack of a consistent national policy, and the magnitude of the curation problem have prevented total compliance with Federal regulations.

**CHARLESTON AIR FORCE BASE,
NORTH CHARLESTON, SOUTH CAROLINA
and
NORTH AUXILIARY FIELD, SOUTH CAROLINA**

COLLECTION SUMMARY

(1) Volume of Artifact Collections: 2.3 ft³

On base: None
Off base: 2.3 ft³

Compliance Status: Collection requires partial rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: Approximately 6.75 linear feet

On base: 0.5 linear feet
Off base: 6.25 linear feet

Compliance Status: Collection requires complete rehabilitation to comply with existing Federal guidelines and modern archival standards.

(3) Human Skeletal Remains: None

(4) Status of Curation Funding: Initial funding for curation was included in the contract as a one-time, per-box, line-item cost. This initial amount, however, is insufficient for curating collections in perpetuity. Additional funds for this purpose are available as an operations and support (O & S) environmental compliance expense.

(5) Status of Installation Repository: Charleston Air Force Base has no dedicated archaeological repository.

INTRODUCTION

Charleston Air Force Base—a 3,500 acre installation located 10 miles north of Charleston, South Carolina, in the city of North Charleston—was established in 1941 when the Army Air Corps assumed control of the civilian airfield. Initially, ground crews for the B-17 Flying Fortress and the B-24 Liberator were trained at this installation. In 1943 the base was reassigned to the Air Transport Command and assumed responsibility for training transport crews. After World War II the base was closed and the property returned to the city. In 1952, the city of Charleston, South Carolina, and the U.S. Air Force agreed to establish a troop carrier base and to share joint use of the runways.

North Auxiliary Field—located away from the main cantonment area—is under the command of Charleston Air Force Base and falls under the scope of this project. Any information concerning archaeological work conducted on the North Auxiliary Field is included in the Charleston Air Force Base collections.

COLLECTIONS AT CHARLESTON AIR FORCE BASE

DATE OF VISIT: October 18, 1993

PERSONS CONTACTED: Glen Easterby and Master Sergeant John Heppel

The Civil Engineering Building (Building 661) is a 14,209-ft², single-story office building. No artifacts are stored at Charleston Air Force Base. Associated documentation consists of 11 files of Base maps and administrative records. Presently, these records are considered operational files and are filed according to Air Force regulations. Once this information is retired, however, it should be treated as part of the historical record and not discarded as dictated by Air Force retention schedules.

Structural Adequacy

Building 661 was built in the mid-1950s and has undergone additional construction approximately six times. The portion of the building that houses the archaeological documentation was added in 1987. Outer walls are constructed of concrete blocks, which have been placed on a concrete slab foundation. The roof is made of built-up asphalt which was patched six years ago. Building 661 has thirty-three, wood-framed windows of various sizes, some of which are protected by venetian blinds. Floors are carpeted concrete, and walls are a combination of plaster and fabric. Exterior doors are glass (Figure 1), and the ceiling is constructed of suspended acoustical tiles (Figure 2).

Environment

Building 661 is equipped with steam heat and air conditioning. The plumbing system is original, and the electrical system was replaced in 1987. Temperature is maintained at a level that is comfortable to the staff. No humidity monitoring or control devices exist in the building. Interior lighting is provided by fluorescent bulbs without ultraviolet screens.

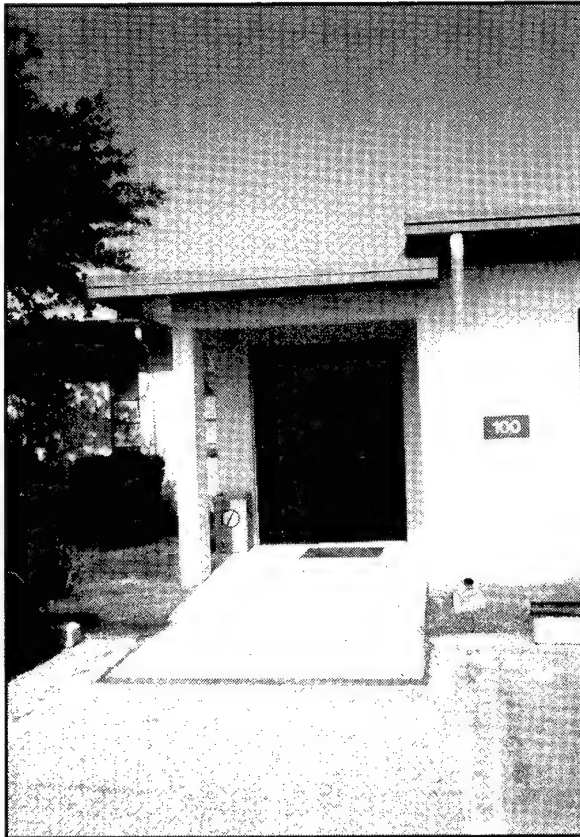


Figure 1. Front entrance to Building 661.

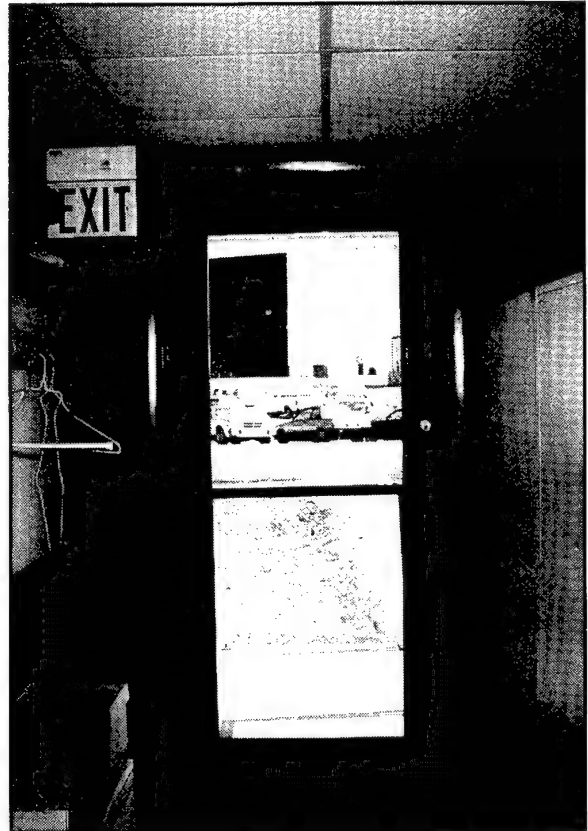


Figure 2. View of side glass door with dead-bolt, double-cylinder lock. The suspended acoustical tile ceiling is also visible.

Pest Management

Pest management consists of a monitoring program, and weekly maintenance and cleaning by a professional cleaning company. Other control measures are conducted on an as-needed basis. No signs of pest infestation were noted by the assessment team.

Security

All windows in the building are accessible from the ground but are protected by basic window locks. Front and side doors are secured with key locks (see figures 1 and 2) and intrusion alarms; however, the alarm system is not currently connected. No signs of unauthorized access were noted by the assessment team.

Fire Detection/Suppression Systems

Building 661 is equipped with manual fire alarms, fire extinguishers (Figure 3), and heat detectors. Alarms are connected to the Charleston Air Force Base fire department.

Artifact Storage

Charleston Air Force Base curates no artifacts.

Human Skeletal Remains

No human skeletal remains are being curated in Building 661.

Records Storage

Associated documentation at Charleston Air Force Base consists of 0.5 linear feet of administrative records, maps and reports. Records are stored in a five-drawer lateral file cabinet, and the drawers are labeled with typed, acidic paper labels inside metal frames (Figure 4).

The records are the responsibility of an administrative assistant; however, anyone in Building 661 has access to the records. Records that are removed and checked-out are replaced with pink sheets. Original copies are not on acid-free paper and duplicate copies have not been made.

Paper Records

Eleven (11) files, which contain administrative records and reports on archaeological and historical artifacts, are stored in acidic, manila folders with typed, adhesive labels. Label information includes the file number, the year, and the title. Collection files are numbered according to the U.S. Air Force Numbering/Filing System. Contaminants in the paper records include such items as staples and paperclips. Ten of the 11 files had records that were torn or discolored from acidity or that showed signs of water damage (Figure 5).

Photographic Records

One file contained black-and-white photographs of historic buildings that were stored loose in the file. Corresponding negatives, however, were stored in archive-quality sleeves.



Figure 3. Halon fire extinguisher in Building 661.



Figure 4. Lateral file cabinet where associated documentation is stored.



Figure 5. Close-up view of associated documentation showing acidic folders, labels, adhesive contaminants, and folded oversized material.

Audio-visual Records

No audio-visual records are curated at Charleston Air Force Base.

Maps and/or Oversized Documentation

Base maps (8.5-by-11 in) of Charleston Air Force Base are stored in the same manila folders as the paper documentation. No oversized maps are included in the collection; therefore, special storage is not required.

Machine Readable Records

No machine readable records are curated at Charleston Air Force Base.

Collections Management Standards

Registration Procedures

Accession Files

Charleston Air Force Base has no accession records, because these files are classified as operational files.

Location Identification

No artifacts are curated at this installation; therefore, no system to identify the physical location of artifacts is necessary.

Cross-indexed Files

No cross-indexed file system exists at this base.

Published Guide to Collections

Not applicable (see Location Identification).

Site-Record Administration

A site-record administration system does not exist at Charleston Air Force Base.

Computerized Data-Base Management

No data-base management system for archaeological collections has been developed.

Written Policies and Procedures

Minimum Standards for Acceptance

Charleston Air Force Base does not accept archaeological collections for curation.

Curation Policy

Not applicable.

Records-Management Policy

Charleston Air Force Base does not have a written records-management policy; however, Air Force regulations governing records numbering, management, and retention are followed.

Field Curation Guidelines

Not applicable.

Loan Procedures

Not applicable.

Deaccessioning Policy

Not applicable.

Inventory Policy

Not applicable.

Latest Collection Inventory

Not applicable.

Curation Personnel

No one is responsible for curatorial duties at Charleston Air Force Base because archaeological collections are not accepted for curation.

Curation Financing

No funding is allocated for curation.

Access to Collections

No artifacts are housed on base, but the associated records are accessible to anyone in the building. Limited accountability is maintained through the check-out system.

Comments

1. Archaeological collections are not curated at Charleston Air Force Base; therefore, a complete 36 CFR Part 79 evaluation was not conducted.
2. No human remains from archaeological work conducted on Charleston Air Force Base or the North Auxiliary Field property are curated in Building 661.

Recommendations

1. Move the Charleston Air Force Base records collection to the South Carolina Institute of Archaeology and Anthropology for proper curation.
2. Remove all contaminants (e.g., staples and paperclips) from the documents.
3. Copy all paper records and reports on acid-free paper and place copies into acid-free folders labeled in indelible ink. Folders should then be placed in acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes. Labels should no longer be applied directly to the boxes. When label information or box contents changes, inserts are replaced, thus reducing the chance for conflicting and confusing information.

4. Place all photographic materials in archive-quality polypropylene sleeves, and place sleeves in acid-free three-ring binders. Create photograph logs with indelible ink on acid-free paper.
5. Place photographic records in a more stable environment with temperature and humidity monitoring and control devices.
6. Arrange associated documentation according to modern archival procedures and create a finding aid for the documentation collection.
7. Make a duplicate copy of all associated documentation, either on acid-free paper or on microfilm, and store them in a separate, fire-safe, secure location.

COLLECTIONS AT THE SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY

DATE OF VISIT: 19–20 October 1993

PERSONS CONTACTED: Sharon Pekrul, Curator, and Keith Derting, Information Management Division Head

For more than twenty-five years, and two name changes, the South Carolina Institute of Archaeology and Anthropology has been investigating, interpreting, conserving, and preserving the archaeological materials from the state of South Carolina. Originally established by the South Carolina General Assembly as the South Carolina Department of Archaeology, its name was changed in 1967 by Governor Robert E. McNair to the Institute of Archaeology and Anthropology. In 1984, when the present director, Dr. Bruce E. Rippeteau, was appointed director and state archaeologist, the Institute was renamed the South Carolina Institute of Archaeology and Anthropology (SCIAA).

The South Carolina Institute of Archaeology and Anthropology has four divisions—Administrative, the Office of the State Archaeologist, Underwater Archaeology, and Research. The Office of the State Archaeologist Division manages four programs. The Information Management Program administers the Statewide Archaeological Site Inventory and is headed by Keith Derting. The Curation Program manages the artifacts and associated documentation from archaeological investigations within South Carolina; Sharon Pekrul has been the curator of this program since November 1986. The Conservation Program operates the Conservation Laboratory Facility, which houses a 5,600-ft³ conservation tank and equipment, and the Publications Program provides technical and popular printed information.

SCIAA offices and collections are located in four buildings in the area immediately around the University of South Carolina campus in Columbia, South Carolina. Archaeological collections are curated in the Collections Facility on College Street. Offices for the four divisions, and all the associated documentation and records from archaeological investigations, are located and curated in the Pendleton Building, 1321 Pendleton Street. The Conservation Laboratory Facility is located on Assembly Street, and all human skeletal materials are curated in Room 114 of the Hamilton College building on the University of South Carolina campus. Dr. Ted Rathbun is the supervisor/director of the human skeletal materials.

Archaeological materials (less than three cubic feet) and associated documentation (approximately six inches) from one survey—by Carolina Archaeological Services in Columbia, South Carolina—of North Auxiliary Field (a subinstallation of Charleston Air Force Base) are curated by the South Carolina Institute of Archaeology and Anthropology. Most of the materials in this collection are historic (Table 2), and human remains were not recovered during the survey.

Repository

Archaeological collections, associated documentation, and the South Carolina state archaeological site files are housed in two repositories—project records, special archaeological collections, artifacts undergoing analysis, and the state site files are housed in the Pendleton Building, and archaeological materials are housed at the Collections Facility. Archaeological materials from North Auxiliary Field projects are curated in the Collections Facility, and the associated documentation from these projects are filed in Suite 1 of the Pendleton Building.

Building Adequacy

Both the Pendleton Building (Figure 6), which is a two-story structure that was built in the 1940s or 50s, and the Collections Facility (Figure 7), which has an unknown construction date, are structurally sound buildings. However, neither was built specifically for the long-term curation of archaeological materials. Both buildings have undergone internal renovations, and the Pendleton Building has had external renovations.

Table 2.
Percentages of the Material Classes in
Charleston Air Force Base Collections

Material Class	Frequency	Percentage of Total
Prehistoric		
Lithics	2	<1
Flakes	111	19
Ceramics	16	3
Faunal	2	<1
Soil	61	11
Other	18	3
Historic		
Ceramics	76	13
Glass	168	29
Metal	57	10
Worked Bone	1	<1
Faunal	1	<1
Brick	35	6
Leather	1	<1
Other	27	5
TOTAL	576	100

Figure 6. Exterior view of the front of the Pendleton Building. The entrance is the left door.



Pendleton Building—Suite 1

Numerous offices, laboratories, and storage areas are located in the 11,926-ft² Pendleton Building, which has a cement slab foundation, brick exterior walls, and the original, flat, tar-and-gravel roof. Vinyl, double-pane windows were added in 1991, interior vinyl base boards were added in 1990, telephones were rewired in 1985, and a dark room and wet laboratory (including plumbing) were added in 1987 or 1988. Other activity areas or rooms in the Pendleton Building include an artifact holding area, an artifact washing area (the wet laboratory), an artifact processing laboratory, a temporary storage area for artifacts, a materials/supplies area, an artifact study room, a records study room, a mechanical/utility room, and a library.



Figure 7. Exterior view of the Collections Facility on College Street .

Thirty-six windows—14 facing west, four facing north, and 18 facing east—allow external light inside the building. Twelve double-pane windows and one display window allow external light into the front (south) of the building. Except for six windows on the east and the 12 windows on the south, all of which are two-by-three feet, all windows are two-by-five feet. Furthermore, all the windows are shaded either with wood shutters or with plastic blinds. Internal doors include hollow-core wood panel doors and metal panel doors, some with reinforced-glass windows. Interior-wall construction consists of sheet rock covering on insulated two-by-four-inch stud framework. Ceilings on both floors consist of 12-by-12-inch acoustical ceiling tiles in a suspended ceiling framework.

Records are stored in a 149-ft² room in Suite 1—the curator's office—of the Pendleton Building. Other rooms in the 678-ft² suite include a work room, a records processing and access room, and a 105-ft² special archaeological collections lock-up room/vault. As is the case with the rest of the Pendleton Building, floors are concrete and covered with carpet, interior sheet-rock walls cover an insulated stud wall, and the ceiling consists of suspended acoustical tiles. Two vinyl, double-pane, two-by-three feet windows face east. No evidence of leaking—water or air—or unauthorized access were noted around the windows, which were added in 1990. Two west-facing, interior, metal doors with two-and-one-half-by-three-feet, wire-reinforced, glass inserts and dead-bolt locks open to the interior of the Pendleton Building main first-floor hallway. One interior, south-facing, metal door with a dead-bolt lock provides access to the vault, and two west-facing, interior, hollow-core wood doors provide access to the records storage room and to the curator's office. No asbestos is present in Suite 1.

Activities in Suite 1 include a temporary storage area for artifacts, a supply storage room, and an artifact and records study area. Some ethnographic collections are stored in the vault. Overstacking of boxes is apparent, and Suite 1 is filled with empty boxes, curation supplies, office furniture, books/reports, analysis equipment, and full artifact boxes. The records storage area has reached capacity.

Collections Facility

Archaeological and paleontological collections and offices are housed in the one-story, 4,750-ft²—95-by-50-feet—Collections Facility on College Street. Age of the building could not be determined by any SCIAA staff members or building supervisors; however, it appears to be no more than 25–30 years old. No external renovations have been made. Exterior, corrugated-metal siding (top) and bricks (bottom) have been placed over a metal superstructure (Figure 8). The foundation is a poured concrete slab, and the roof is corrugated metal. Underwater Archaeology Division equipment and woodworking equipment is stored in the storage space on the west side of the partition wall, and University of South Carolina equipment is stored on the east side of the concrete-block wall.

Activity areas in the Collections Facility include an artifact holding area, a temporary storage area for artifacts, a materials/supplies storage area, artifact study rooms, offices, and a restroom. Interior walls of the Collections Facility are composed of concrete blocks (east wall), plastic-backed insulation over the metal superstructure (south and north walls), and two-by-four-inch studs covered with wire mesh on one side and plywood on the other (west wall). Rooms that abut the north wall have interior walls that are made of two-by-four-inch walls covered with sheet rock. Exterior walls of these rooms are unfinished, unpainted plywood. Some concrete blocks in the east interior wall had been replaced, and an overhead loading door on the east wall is no longer operational.

Entrance to the Collections Facility is through a dead-bolted metal door on the north side. Three interior, hollow-core wood doors—one east-side door and two west-side doors—open to the interior rooms, which hold special archaeological and paleontological collections on enameled-metal shelves and on the floor. Overstacking of boxes is not apparent, and the collections storage area is clean. Asbestos is not present in the Collections Facility, which has reached approximately 90% capacity.

Environment

Pendleton Building—Suite 1

Internal temperatures in the Pendleton Building are thermostatically controlled by a heating-ventilating-air conditioning (HVAC) system. Air temperature in the summer is targeted at 74–78°F and in the winter at 68–72°F. Central, forced-air heat is used in the winter. Humidity is not monitored, and dust filters are not present in the environmental control system. Internal lighting is provided by non-filtered fluorescent bulbs. University of South Carolina custodians clean the Pendleton Building and Suite 1 on a daily basis. Overhead pipes are not present in Suite 1.

Collections Facility

Other than one large heater and one large exhaust fan, there are no environmental control or monitoring devices in the Collections Facility (see Figure 8). Temperatures in the summer reach 93–94°F, and normally are approximately 80°F. Humidity is not monitored; therefore, it fluctuates with the exterior conditions. Dust filters are not present on the heater. Interior lighting is provided by overhead, non-filtered fluorescent bulbs. Curatorial staff clean the Collections Facility every three months and when something is noted.

Functional water pipes are located below the ceiling; however, there has never been a structural failure of the system. Archaeological collections are located under the water pipes. Moisture has leaked through the ceiling, and it is presently a problem. A vent in the west wall allows saw dust and other toxic vapors to enter the Collections Facility from the adjoining room, which houses equipment and supplies for the Underwater Archaeology Division (Figure 9). One restroom and one telephone are located in the Collections Facility.

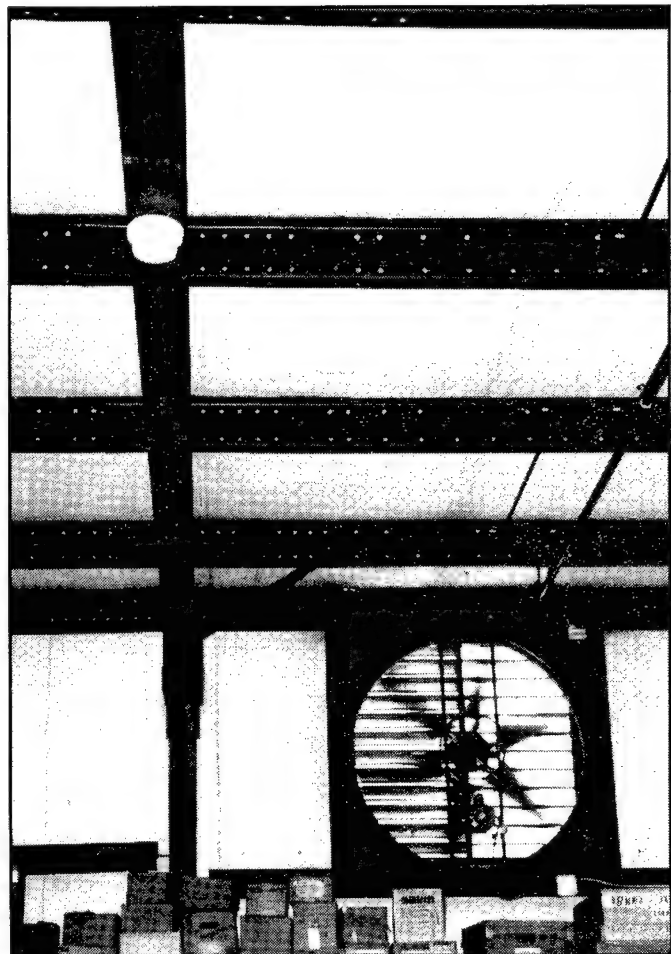


Figure 8. Exhaust fan on south wall of the Collections Facility.

Pest Management

Pendleton Building—Suite 1

Pest management in the Pendleton Building and Suite 1 consists of monitoring and spraying for insects and rodents. According to the curator, there has been a field-mice problem in the past; however, no signs of field mice or other pests were noted. Precautions such as spraying occur on an as-needed basis.

Collections Facility

Pest management in the Collections Facility consists of quarterly, and as-needed, visits by a professional pest management company. No mice, spiders, or other pests were noted during our visit.

Security

Pendleton Building—Suite 1

Security measures for the Pendleton Building include intrusion alarms and dead-bolt locks. Intrusion alarms wired into the University of South Carolina police are located on the two exterior doors (Figure 10). The back wood-panel (north) door is key set, battery operated, and dead bolted. The two front glass doors are key locked and chained together at night (see Figure 6). University of South Carolina police patrol the area at night.

According to the curator, there has never been an unauthorized access through the windows or doors of SCIAA. On the first floor, 23 windows are accessible from the ground, and on the second floor, 27 windows are accessible with a ladder or similar device. Interior doors to offices, including Suite 1, are secured with dead-bolt locks. The walk-in vault in Suite 1 also is dead bolted. According to the curator, there has been no unauthorized access through the windows or doors into Suite 1. Two ground-level windows are accessible from the exterior.

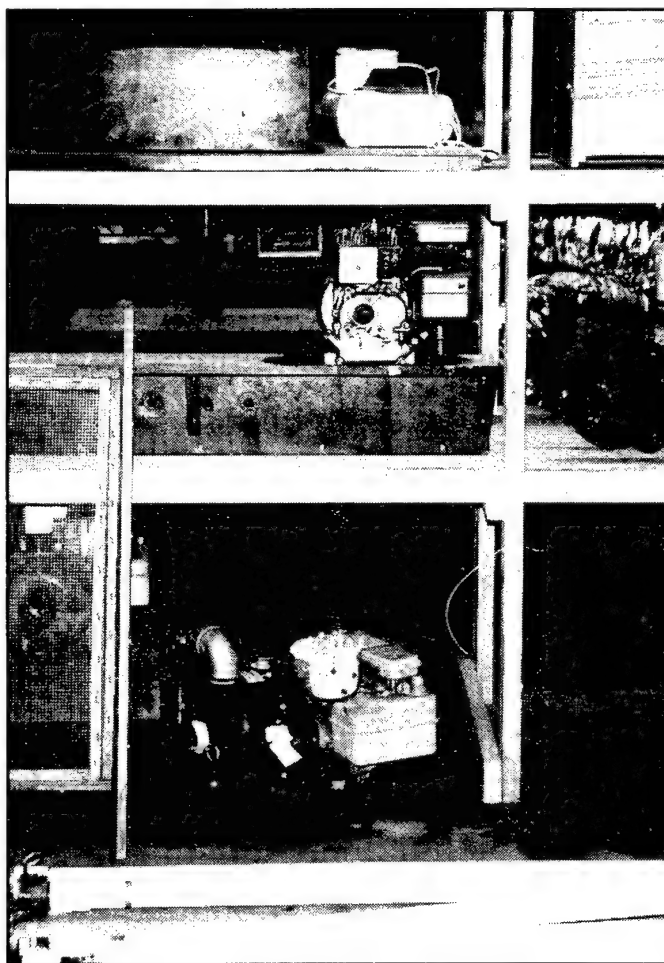


Figure 9. Equipment storage for Underwater Archaeology Division in the Collections Facility.

Collections Facility

Security measures for the Collections Facility consist of an outside locked chain-link fence (Figure 11), an intrusion alarm wired in the University of South Carolina police, keypad access into the facility (Figure 12), and motion detectors which are wired into the alarm system and are located on the front door, on the internal doors, and down the center of the ceiling. The outside chain-link fence is locked by University police from 4:00 p.m. to 7:00 a.m., Monday–Friday, and all weekend. According to SCIAA personnel, there has never been an unauthorized access into the repository; however, access to the Collections Facility is possible through the hole in the west wall and through the overhead loading door, if it became operational.

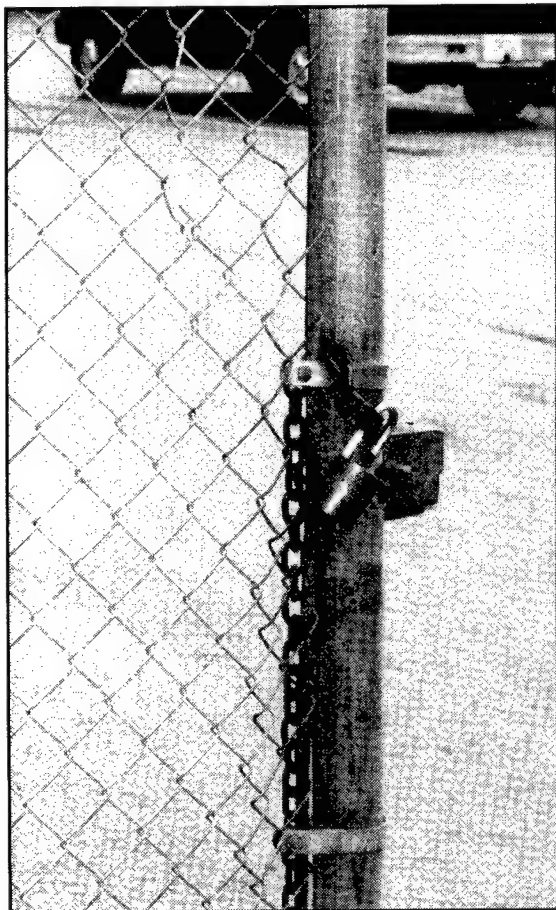


Figure 11. Padlock on gate and fence surrounding the Collections Facility.



Figure 10. Intrusion alarm (contact point) at front entrance of the Collections Facility.



Figure 12. Keypad security on door of the Collections Facility.

Fire Detection/Suppression Systems

Pendleton Building—Suite 1

Suite 1 has no fire detection or fire suppression devices; however, fire extinguishers are located on the southeast walls of the first and second floors of the Pendleton Building. Fire extinguishers were last inspected in June 1993. No other fire detection or fire suppression devices are located in the Pendleton Building.

Collections Facility

Fire detection devices are absent in the Collections Facility; however, fire suppression devices include two fire extinguishers and an overhead, wet-pipe system (see Figure 8). The fire extinguishers are located near the entrance (north) of the Collections Facility and were last inspected in 1988.

Artifact Storage

No Air Mobility Command archaeological collections are stored in Suite 1. Other archaeological collections are temporarily housed in the walk-in vault in Suite 1. All of the Air Mobility Command—North Auxiliary Field—collections (2.3 ft³) are housed in two boxes in the Collections Facility.

Storage Units

Archaeological collections are permanently housed on enameled-metal shelving units (Figure 13). Each six-shelf unit is four feet long, two feet wide, and seven feet tall. Rows have been formed by attaching five or six individual units together.

Primary Containers

North Auxiliary Field archaeological collections, which consist of historic materials (64% of the total) and prehistoric materials (36%), are housed in two acidic, stapled and glued, cardboard boxes with telescoping lids (Figure 14). Box 1 of 2 is 21 in wide, 24 in long, and three (3) inches deep, and Box 2 of 2 is 21 in wide, 24 in long, and five (5) inches deep. Neither box displays evidence of damage due to water, compression, or other processes. Provenience information—site number, installation name, excavator/investigator name, and date—has been placed on labels made of

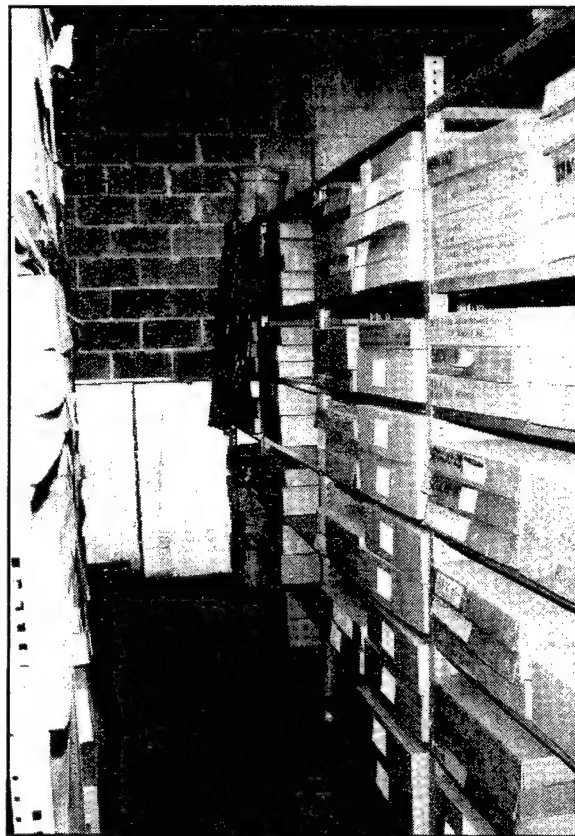


Figure 13. View of collections storage area in the Collections Facility.

three-by-five-inch white, acidic cards stapled to the side of the box.

Secondary Containers

All North Auxiliary Field artifacts have been placed in four-mil, zip-lock plastic bags; most of these plastic bags have been placed inside larger acidic paper or plastic zip-lock bags (see Figure 14). Box 1 contains 10 larger bags and Box 2 contains nine larger paper and plastic bags. Exterior large bags have provenience information—installation name or abbreviation (NAF for North Auxiliary Field), site number, date of survey, initials of field crew, and other locational data—applied directly to the surface with a black marking pen. Secondary container labels—site number and catalog number—have been applied directly to the surface with a black marking pen. Most of the large plastic, zip-lock and paper bags also have labels—which have been cut from the original paper field or laboratory bags—that have been placed inside the bag with the artifacts. An acidic paper label with the site number and catalog number has been placed inside each secondary container bag.

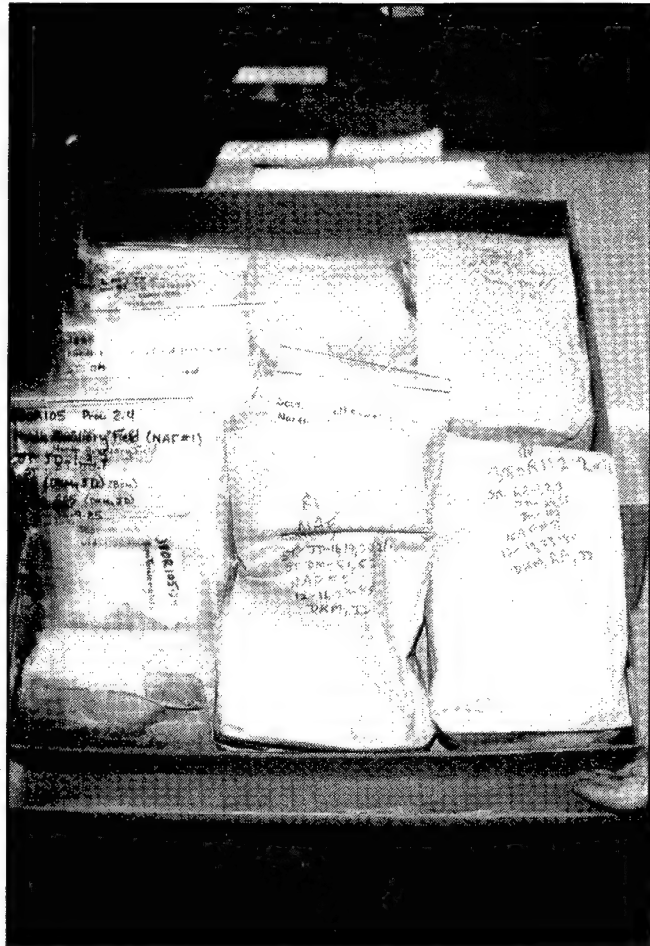


Figure 14. Interior view of primary container holding North Auxiliary Field collections.

Laboratory Processing and Labeling

All artifacts have been cleaned and sorted by material class. Except for some small pieces of glass, all archaeological materials have been labeled directly in india ink.

Human Skeletal Remains

No human skeletal materials from North Auxiliary Field or any other Air Mobility Command installations are curated at the South Carolina Institute of Archaeology and Anthropology.

Records Storage

Approximately six (6.25) inches of documentation from North Auxiliary Field are stored in letter-sized metal file cabinets in the records storage room in Suite 1 of the Pendleton Building (Figure 15). Record types include background, excavation, analysis, cartographic, report, and photographic records and duplicate site forms (Figure 16). Arrangement in the cabinets is by county and site number. Individual files have adhesive labels that minimally contain the installation's name. Other information may include the county, date, site numbers, and investigator. Label medium is inconsistent. Information has been placed on the label with a brown marking pen, a blue ink pen, or a typewriter.

One of the three files has a general appearance that is good—only abrasions, small tears, and contaminants (e.g., paper clips, staples) are present. One file, which

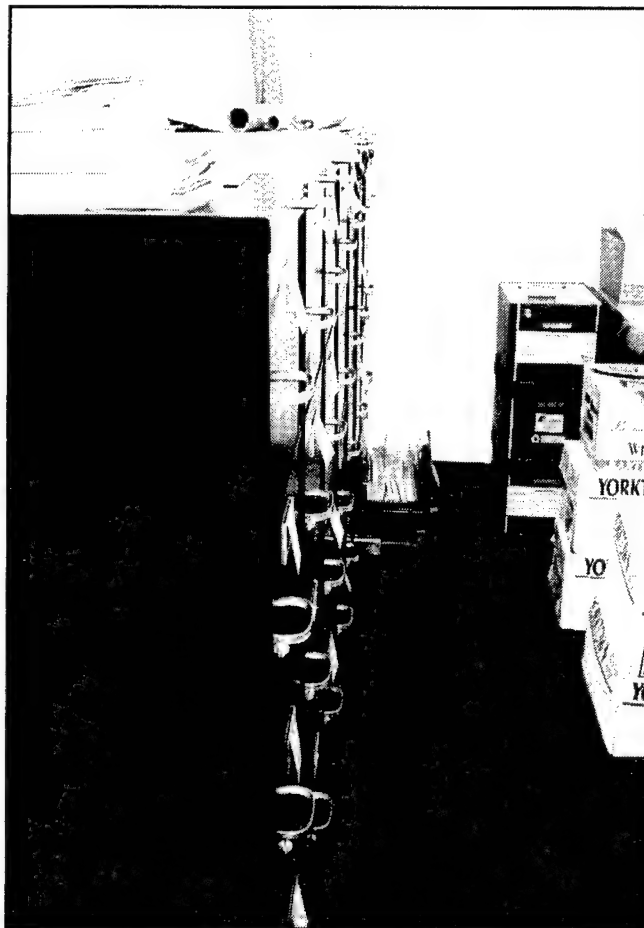


Figure 15. View of file cabinet where North Auxiliary Field associated documentation is stored in the Pendleton Building.

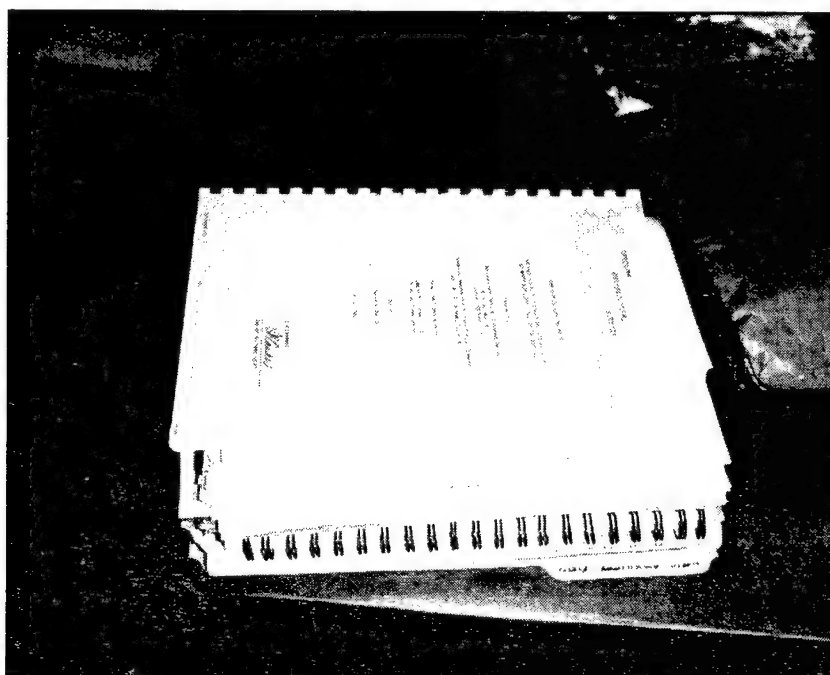


Figure 16. Associated documentation and reports from North Auxiliary Field projects.

contains field notes, also has a good general appearance; however, there are water stains, discolorations, tears, surface dirt, and contaminants present. The third file's general appearance is worse than the field-notes file.

No accession data is available, none of the documents have been processed archivally, and finding aids are unavailable. Preservation/security copies have not been made.

Paper Records

Paper records include background records [four percent (4%) of the total associated records], excavation records (48%), and duplicate site forms (12%).

Photographic Records

Photographic records [four percent (4%) of the total associated records] include black-and-white prints, negatives, and contact sheets. All of the photographic records are stored loose or in thin, plastic sleeves.

Maps and/or Oversized Documents

Maps, drawings, and blueprints comprise 14% of the total associated documents. All of these documents are stored flat or folded in the letter-sized files.

Project Reports

One camera-ready copy of *Carolina Archaeological Services, Resource Studies Series 90* is stored with the other North Auxiliary Field documentation. It comprises the remainder of the associated records, and it contains original photographs, line drawings, and maps of the Carolina Archaeological Services work on this installation.

Collections Management Standards

The State Historic Preservation Office of South Carolina has published *Guidelines and Standards for Archaeological Investigations* which outlines the Federal and State legislation for archaeological survey and data recovery. This 39-page document also addresses issues—project review; the treatment of archaeological properties; research designs; field methods for survey, site testing, and data recovery; laboratory methods; reports; report evaluation; and personnel guidelines—that are pertinent to the performance of archaeological investigations in South Carolina. The South Carolina Institute of Archaeology and Anthropology also has established a number of standards and guidelines for collections management.

Registration Procedures

Accession Files

Archaeological materials and associated documentation are not accessioned upon receipt; however, SCIAA maintains a receipt log for materials by site number and project. Collections are inventoried upon receipt.

Location Identification

Personnel can locate materials by site number and project.

Cross-indexed Files

Files are cross indexed by site number. A master catalog is maintained for the collections, and a copy of the initial inventory and the file of documented property receipts is readily accessible in the curator's office. The SCIAA filing system also includes individual files for loans, donations, transfers, correspondence, site, catalog, analysis, conservation, photographs, maps/drawings, projects, research, and reports.

Published Guide to Collections

To date, the South Carolina Institute of Archaeology and Anthropology has not published a guide to the collections.

Site-Record Administration

Official South Carolina archaeological site records are maintained by the Statewide Archaeological Site Inventory in the Information Management Program. *Site File Procedures* (October 1993) was written for individuals/investigators wanting to record/report archaeological sites. The *Handbook to the Site Inventory Record* was published in April 1985. Sites are recorded using the Smithsonian Institution's River Basin Survey trinomial site-numbering system.

Computerized Data-Base Management

Archaeological collections are entered into a data base upon receipt. Data fields include site number, project name, investigator, year, number of boxes, and location within the repository.

Written Policies and Procedures

Minimum Standards for Acceptance

A draft of SCIAA's acceptance standards is being written; however, the South Carolina Institute of Archaeology and Anthropology's curation standards are noted in a form letter used by the curator informing persons and agencies of their curation fees and policies. In summary, in order to be accepted for curation, (1) the collection must be appropriately cleaned, cataloged, conserved, packaged, and labeled and (2) the collection must be accompanied by appropriate records and documentation (see Appendix II for the complete curation standards).

Curation Policy

No long-term curation policy has been written; however, at present, the draft *Curation Standards* (Appendix II) is being used.

Records-Management Policy

No records-management policy has been published or written. Associated documentation is addressed in the *Site File Procedures* and the draft *Curation Standards*, but a comprehensive policy document has not been completed by SCIAA.

Field-Curation Guidelines

Field-curation guidelines have not been established at SCIAA.

Loan Procedures

An internal 10-point policy guides the loan procedures. Written procedures will be included in the *Curation Standards* when it is finished. No loans are made for research, but loans are made to museums for displays. In summary, loans are made for one year and may be renewed on an annual basis. Borrowers are responsible for providing transportation, security, protection, and environmental control arrangements. No alterations—cleaning, repairing, conserving—can be performed without the curator's consent. Borrowed objects must be used specifically for the purpose for which the loan was requested. Objects displayed or exhibited must be mounted using non-destructive techniques. Finally, loan agreements may be terminated by both parties.

Deaccessioning Policy

SCIAA does not have a written deaccessioning policy, but investigators are advised to sample the shell, brick, and soapstone from a site. A deaccessioning policy will be added to the draft *Curation Standards*.

Inventory Policy

Collections are inventoried upon receipt. The master catalog includes building location, site number, site/project name, investigator, year, and number of boxes. No other periodic inventories are performed.

Latest Collection Inventory

SCIAA has not conducted an inventory of the collections housed at the Collections Facility and the Pendleton Building. All human remains, however, have been inventoried as part of a National Science Foundation grant.

Curation Personnel

One person—a curator—is responsible for the archaeological collections and associated documentation. Sharon Pekrul, curator since November 1986, received her Bachelor's degree in archaeology and anthropology from Cornell University and her Master's degree from the University of South Carolina. The curator's responsibilities include:

- (1) managing the archaeological collections of South Carolina, including the operation of the Collections Facility and collections inventory, documentation, organization, long-term maintenance, and security;
- (2) overseeing all artifact transactions;
- (3) responding to requests for information pertaining to the collections and/or curation procedures;
- (4) providing research access to the collections and associated records;
- (5) developing and maintaining curation policies, procedures, and guidelines;
- (6) supporting Information Management Division staff in the curation of site records, maps, and photographs, in the development and implementation of joint policy, and in office staffing; and
- (7) managing SCIAA's archaeological laboratories, including coordinating access, overseeing the use of space, equipment, and supplies, maintaining laboratory organization, set up, and cleanliness, and advising and assisting with laboratory preparation of materials and curation.

Curation Financing

Curation activities are supported by the University of South Carolina and the curation fees. The University of South Carolina provides funding for operation of the four SCIAA buildings, and a one-time curation fee of \$68/ft³ covers curation supplies and initial processing. Present funding is inappropriate for proper curation.

Access to Collections

Access to the archaeological collections in the Collections Facility and the associated records in Suite 1 is limited to qualified researchers and students. Permission must be received from, and logistical arrangements must be made with, the curator. Permission to review the Statewide Archaeological Site Files must be received from the head of the Information Management Division.

Future Plans

Presently, the South Carolina Institute of Archaeology and Anthropology is negotiating with the University of South Carolina for new buildings for offices and curation.

Comments

1. The Pendleton Building and the Collections Facility are structurally sound.
2. The records storage area in the Pendleton Building has reached capacity.
3. Environmental controls are absent in the Collections Facility—interior temperatures and humidity levels fluctuate in concert with the exterior conditions.
4. A vent in the west wall of the Collections Facility allows dust and toxic fumes to enter the collections storage area.
5. No standard pest-management system has been implemented in either the Pendleton Building or the Collections Facility.
6. Unauthorized access in the Collections Facility may be achieved through the vent in the west wall.
7. Intrusion detection and deterrent measures for the Pendleton Building and the Collections Facility meet the guidelines established in 36 CFR Part 79.
8. Fire detection devices are absent in the Pendleton Building and the Collections Facility. Adequate and appropriate fire suppression devices also are lacking in both buildings.
9. All Air Mobility Command collections (North Auxiliary Field) are housed in acidic cardboard boxes; secondary containers consist of acidic paper bags and four-mil, zip-lock, plastic bags. A few larger items are stored loose in the boxes.
10. Label information on primary and secondary containers is consistent but not appropriate.
11. All Air Mobility Command archaeological materials, excluding small fragments of glass, have been labeled directly in india ink.
12. No human skeletal remains were recovered from archaeological investigations on North Auxiliary Field.
13. Storage of all associated records from North Auxiliary Field projects does not meet modern archival standards.
14. Label information and label medium on file folders is inconsistent.
15. Accession data is unavailable, documents have not been process archivally, and finding aids are absent.
16. Collections management standards and practices, which are in draft form at the present time, are in the process of being codified by SCIAA.

17. When appropriate, SCIAA also adheres to the State Historic Preservation Office's *Guidelines and Standards for Archaeological Investigations*.
18. SCIAA has a full-time curator for archaeological collections and associated records.
19. SCIAA's professional staff is dedicated to the safeguarding and care of the materials curated at their facility; however, funding is inappropriate for proper curation.
20. Lighting in collection storage area does not have ultraviolet sleeves in place.

Recommendations

1. Provide more dedicated space for records storage.
2. Install an environmental system (e.g., HVAC) to control the temperature and humidity, monitor the humidity, and install a dust-filtration system in the Collections Facility.
3. Close the hole in the west wall of the Collections Facility, and seal the west wall to prevent dust and fumes from entering.
4. Implement a professional pest-management system for the Pendleton Building and the Collections Facility.
5. Install a sufficient fire-detection and suppression system in the Collections Facility and the Pendleton Building.
6. Replace acidic cardboard boxes with acid-free boxes. Apply adhesive polyethylene plastic label holders, with acid-free inserts, to the boxes. Labels should no longer be applied directly to the boxes. When label information or box contents changes, inserts are replaced, thus reducing the chance for conflicting and confusing information.
7. Labels for secondary containers should be made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper), labeled in indelible ink, and inserted into the secondary containers.
8. Remove all contaminants (e.g., staples, paper clips) from the documents.
9. Duplicate all paper records onto acid-free paper and place in acid-free folders labeled in indelible ink. Place all folders in acid-free cardboard boxes, and apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
10. Flatten oversized material and place in flat map storage cases for long-term curation.
11. Place all photographic materials in archival-quality polypropylene sleeves, and place sleeves in acid-free, three-ring binders. Photograph logs should be on acid-free paper in indelible ink.

12. Photographic records should be stored in a stable environment that has humidity and temperature monitoring and control devices.
13. Arrange associated documentation according to modern archival procedures and create a finding aid for the documentation collection.
14. Make a duplicate copy of all the associated documentation, and store these materials in a separate, fire-safe, secure location.
15. Place ultraviolet filters on fluorescent lights in collection storage and document storage areas.

DOVER AIR FORCE BASE DOVER, DELAWARE

COLLECTION SUMMARY

(1) Volume of Artifact Collections: Approximately 11 ft³

On Base: Less than one cubic foot (1 ft³)

Off Base: 10.75 ft³

Compliance Status: All artifact collections will require at least partial rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: Approximately one (1) linear foot

On Base: Less than one (1) linear foot

Off Base: 0.9 linear feet

Compliance Status: All collections of associated documentation and reports will require complete rehabilitation to comply with existing Federal guidelines and standards for archival preservation.

(3) Human Skeletal Remains: No human skeletal remains were noted by the assessment team in the Dover Air Force Base collections.

(4) Status of Curation Funding: Funding for curation is available as an operations and support (O & S) environmental compliance expense.

(5) Status of Installation Repository: No archaeological repository has been designated to curate archaeological collections from Dover Air Force Base. Air Mobility Command plans to place all Dover Air Force Base collections in a central repository in Delaware.

INTRODUCTION

Dover Air Force Base is a 3,735-acre Air Mobility Command installation located three miles southeast of Dover, Delaware. Historical-properties responsibilities at Dover Air Force Base are coordinated by a Community Planner in the Engineering Flight, Program Management Element. The low priority given archaeology is reflected in the poor conditions under which the artifact and associated documentation collections are maintained.

Archaeological collections recovered from Dover Air Force Base are stored in (1) a letter-sized file cabinet in the office of the Community Planner at the base, (2) the offices of a contractor located in northern Delaware, (3) the collections of the University of Delaware at Newark, and (4) the collections of the Island Field Archaeological Research Center at Dover. A program for the permanent curation of archaeological collections under the jurisdiction of the Dover Air Force Base is nonexistent. According to Robin Burgess, the collection housed at Dover Air Force Base has been transferred to the Delaware State Historic Preservation Office for study.

Artifacts recovered from the base comprise two exclusively prehistoric collections and three mixed collections of both historic and prehistoric artifacts (Table 3).

Table 3.
Percentages of Material Classes in Dover
Air Force Base Collections

Material Class	Frequency	Percentage Present
Prehistoric		
Lithics	99	4
Groundstone	23	1
Debitage	946	40
Ceramics	23	1
Faunal Remains	8	<1
Mica	5	<1
Fire-Cracked Rock	695	29
Other	3	<1
Historic		
Ceramic	129	5
Glass	300	13
Metal	136	6
Faunal Remains	8	<1
Brick	8	<1
Marble	6	<1
Other	2	<1
TOTAL	2,391	100

COLLECTIONS AT DOVER AIR FORCE BASE

DATE OF VISIT: October 18, 1993

PERSON CONTACTED: Joseph Paterno, Community Planner for Dover Air Force Base

Approximately one hundred (100) pieces of debitage are stored on Dover Air Force Base; associated documentation consists of three reports.

Repository

A repository survey and evaluation were not performed because Air Mobility Command Headquarters does not plan to keep collections on Dover Air Force Base. The one surface collection that is housed on Dover Air Force Base is in the office of the Community Planner in the Environmental Engineering Building (Figure 17).

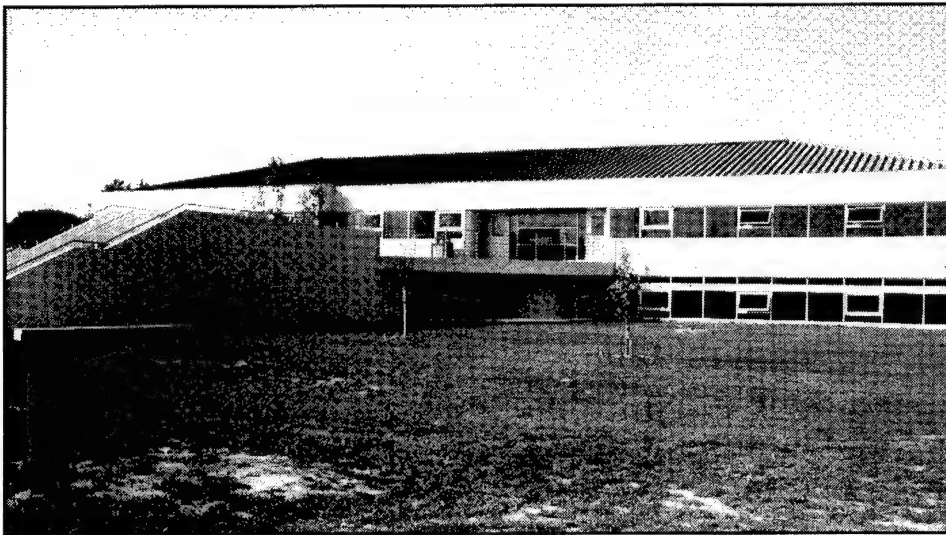


Figure 17. Exterior view of CEV/CES Building at Dover Air Force Base.

Artifact Storage

Storage Units

The single collection at this repository is stored in a four-drawer, letter-sized metal file cabinet in Mr. Paterno's office.

Primary Containers

The collection is not stored in a primary container.

Secondary Containers

The secondary container for this collection is an acidic paper bag that is folded and secured with cellophane tape. Taped on the bag is a yellow post-it note with the following information: "Archeological Finds along the St. Jones River, Dover AFB." No other collection information was located.

Laboratory Processing and Labeling

One collection of approximately one hundred (100) pieces of debitage is curated at Dover Air Force Base. All artifacts have been cleaned, but none are labeled.

Human Skeletal Remains

No human skeletal remains are being curated at Dover Air Force Base.

Records Storage

Documentation, which consists of three reports, that are printed on acidic paper and bound with non-archival plastic spiral bindings are stored in Mr. Paterno's office. No other records—photographs, maps or oversize materials, audio-visual records, or machine-readable records—are curated at Dover Air Force Base. No duplicate copy of these reports have been made.

Collections Management Standards

Registration Procedures

Accession Files

No accession files have been created for Dover Air Force Base, because the Air Force deems it unnecessary to create accession files for collections they own and curate.

Location Identification

No system to identify the physical location of artifacts exists.

Cross-indexed Files

No cross-indexed file system has been established at the base.

Published Guide to Collections

No published guide to the collection exists.

Site-Record Administration

A site-records administration system does not exist at Dover Air Force Base.

Computerized Data-Base Management

A data-base management system for archaeological collections has not been created for this base.

Written Policies and Procedures*Minimum Standards for Acceptance*

Minimum standards for acceptance of archaeological collections have not been written for Dover Air Force Base.

Curation Policy

No written curation policy exists; artifacts are kept in Mr. Patermo's office.

Records-Management Policy

A records-management policy has not been established at this base; however, Air Force regulations governing records numbering, management, and retention are followed.

Field-Curation Guidelines

No guidelines have been implemented.

Loan Procedures

Written policies regarding loaned materials have not been published.

Deaccessioning Policy

No deaccessioning policy has been established.

Inventory Policy

No inventory policy has been written or implemented at Dover Air Force Base.

Latest Collection Inventory

Prior to the assessment team's arrival, the collection had never even been counted. No inventory exists.

Curation Personnel

Dover Air Force Base does not have a full-time curator. Mr. Patermo, a Community Planner at Dover Air Force Base, ensures that the collection is kept at the base, but he performs no curation duties.

Curation Financing

Dover Air Force Base allocates no money for the curation of archaeological collections. Because the collection has been transferred to the Delaware State Historic Preservation Office since the initial assessment, there is no expense at the present time for curation.

Access to Collections

Access to the collection is controlled by Mr. Paterno, who decides which persons may utilize the collection. No formal procedures have been implemented.

Future Plans

Dover Air Force Base plans to place all the collections from base property into a single, central repository in Delaware.

Comments

1. Air Mobility Command never intended to maintain the collection at this facility, so a full 36 CFR Part 79 evaluation of Dover Air Force Base was not conducted.
2. No human remains are being curated at Dover Air Force Base.

Recommendations

1. Move the Dover Air Force Base collection to the Island Field Archaeological Research Center in Dover for proper curation.
2. Create and maintain proper accession records.
3. Label all artifacts with indelible ink to prevent information loss if artifacts are separated from provenience data.
4. Replace secondary container with four-mil, zip-lock, polyethylene plastic bags, and label with indelible ink. Additionally, interior labels made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper) should be labeled in indelible ink and inserted into the polyethylene plastic bags.
5. Place the polyethylene plastic bags in an acid-free primary container. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
6. Make a duplicate copy of all reports on acid-free paper, and store them in a separate, fire-safe, secure location.

COLLECTIONS AT MAAR ASSOCIATES, NEWARK, DELAWARE

DATE OF VISIT: October 20, 1993

PERSON CONTACTED: Ronald Thomas

Approximately 6.5 ft³ of artifacts and less than one (1) linear foot of associated documentation from Dover Air Force Base property is being curated temporarily at MAAR Associates. The collection consists of both historic and prehistoric materials, primarily pieces of debitage and fire-cracked rock (see Table 4).

Table 4.
Percentages of Material Classes in Dover Air
Force Base Collection at MAAR Associates

Material Class	Frequency	Percentage Present
Prehistoric		
Lithics	49	3
Debitage	632	38
Ceramics	14	1
Faunal Remains	4	<1
Mica	5	<1
Fire-Cracked Rock	665	40
Other	1	<1
Historic		
Ceramics	76	5
Glass	121	7
Metal	93	5
Faunal Remains	7	<1
Brick	8	<1
Other	2	<1
Total	1,677	100

Repository

MAAR Associates currently leases space in two different buildings. Offices and records storage occupy the second story of a building located in a small strip mall (Figure 18). Collections are stored in the basement of a building located a short distance from their offices in the same mall. A small room in this area is used for laboratory processing of collections. The basement facility is located under a kennel/dog grooming business (Figure 19). A full building evaluation was not conducted on both spaces because the artifacts and associated records from Dover Air Force Base will be returned to the base when the report is finalized.



Figure 18. Entrance to offices of MAAR Associates.



Figure 19. Entrance to laboratory and collections storage area at MAAR.

Environment

No temperature or humidity control systems are present in the collection storage area. Dust filters are not in use in this area either. Lighting in the laboratory consists of fluorescent overhead lights and fluorescent desk lamps. None of the lights are covered with ultraviolet sleeves. Lights are attached to the ceiling in a very precarious manner and, in at least one case, are close to falling (Figure 20). Exposed copper water pipes are located along the ceiling (Figure 21). Electrical wiring also is exposed along the ceiling, and in some cases the junction boxes are not properly enclosed (Figure 22). Staff members from MAAR maintain the basement on an as-needed basis.

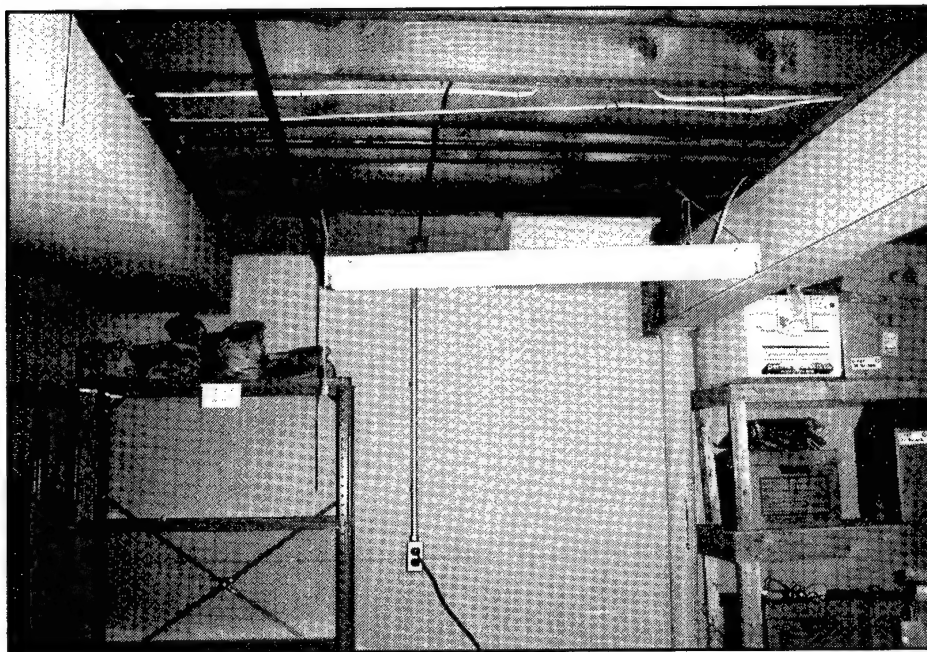


Figure 20. Light falling from the ceiling in laboratory/collection storage area.

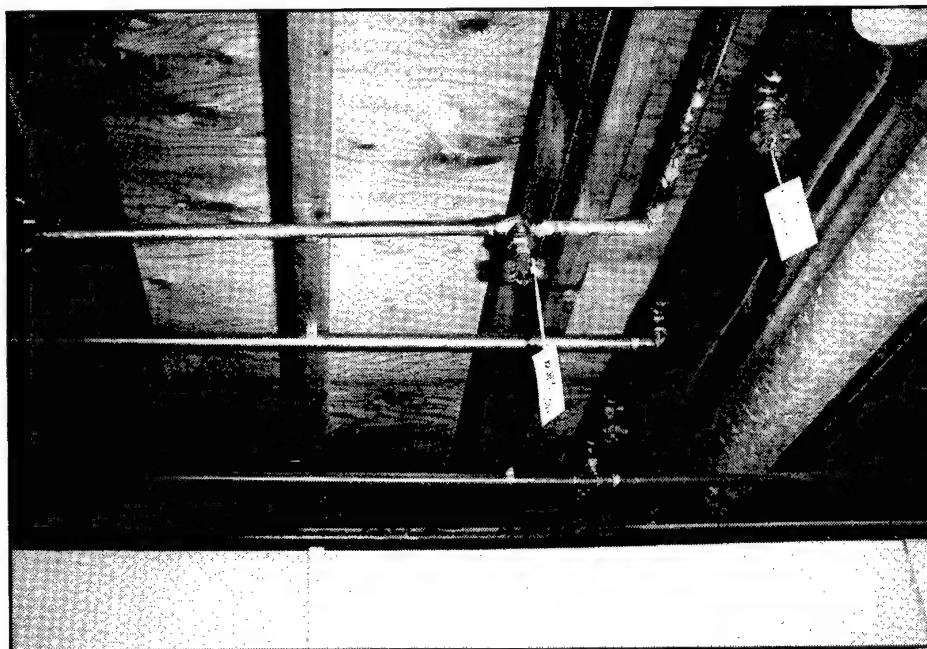


Figure 21. Exposed water pipes running along the ceiling in the laboratory/collection storage area.

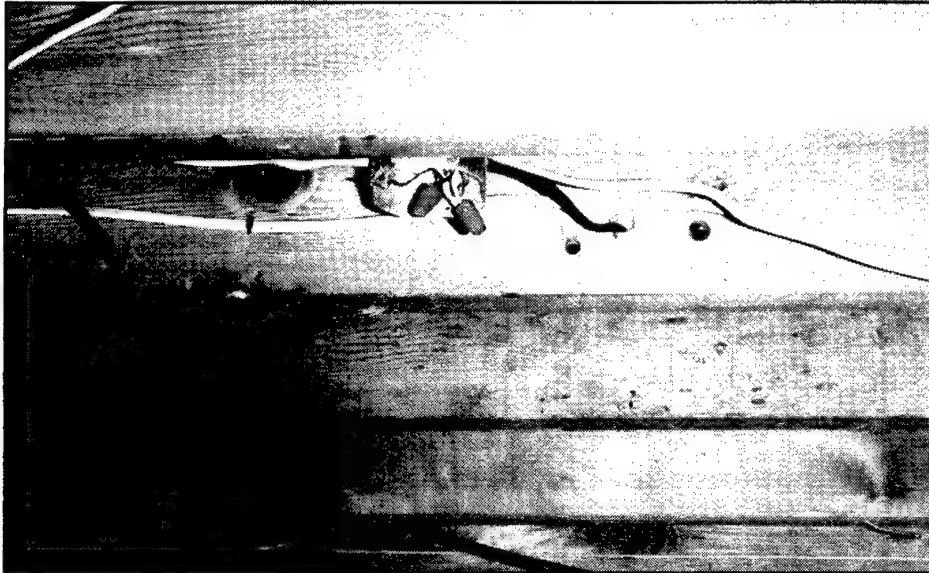


Figure 22. Electrical junction, which is not properly enclosed, on ceiling in the laboratory.

Pest Management

No consistent pest-management system has been established. No serious pest infestation problems exist in the collections storage or laboratory area; however, the assessment team noted spider webs in one box of the Dover Air Force Base collection.

Security

The door to the collection storage area is secured with a double-cylinder lock. Windows are not present in the basement facility thus providing additional security. Only a limited number of the staff have keys to the collection storage area; therefore, access is controlled.

Fire Detection/Suppression Systems

Neither fire detection nor suppression systems exist in the collections storage facility. The only fire suppression device in this area is a single fire extinguisher, which is maintained by the MAAR staff.

Artifact Storage

Storage Units

Collections housed at this facility are stored on painted metal shelves—36 in long, 15.5 in wide, and 72 in high. No numbering system for the shelves exists.

Primary Containers

Primary containers consist predominately of standard one-cubic-foot, acid-free boxes with folded-flap lids. A few boxes, however, are of irregular size—12 in by 9.5 in by 6 in. All irregularly sized boxes also are made of acid-free material. Box frames are glued, and many are reinforced with non-archival strapping tape. Boxes are labeled in marker on adhesive labels. Label information consists of project name, site area, and, in some cases, catalog numbers. A few boxes provide provenience information on the label, but this information is inconsistent (Figure 23).

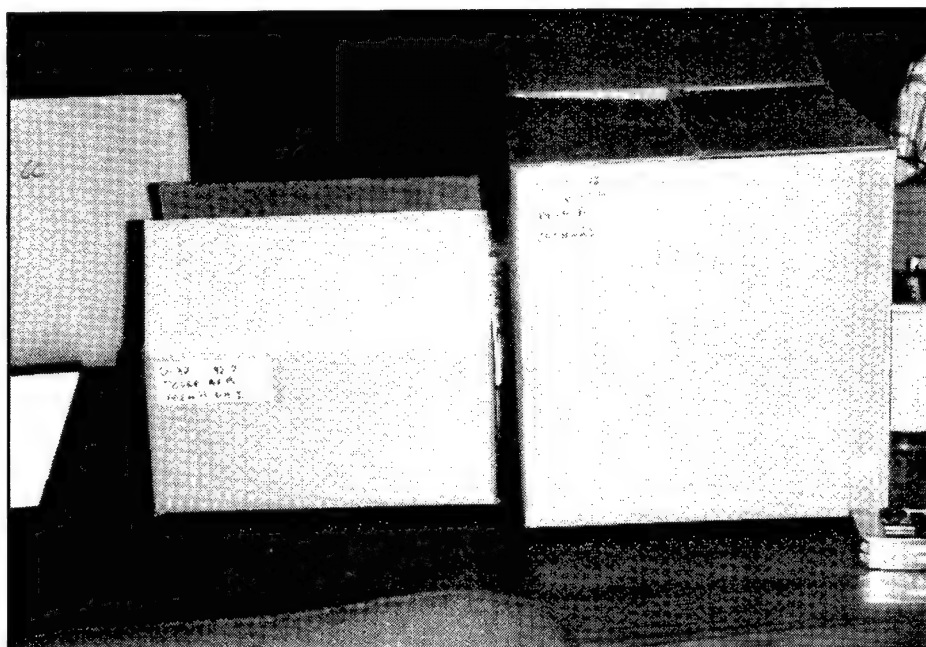


Figure 23. Primary containers holding Dover Air Force Base collections at MAAR.

Secondary Containers

All artifacts in the Dover Air Force Base collection are packaged in polyethylene, zip-lock bags (Figure 24). In one box, these plastic bags have been placed in paper bags. Packaging for fragile artifacts consists of placing the artifact in a plastic film vial and then placing the vial in a polyethylene, zip-lock bag. Some bags are two-mil, while others are of a heavier grade. The lighter grade bags have suffered damage from artifacts puncturing the bags.

Each bag contains a label identifying the artifact (see Figure 24). The label format has been preprinted on acidic paper filled in with nonarchival ink from a fine-tipped marker. Label information consists of a catalog number, site number, project name, date, researcher, and provenience information.

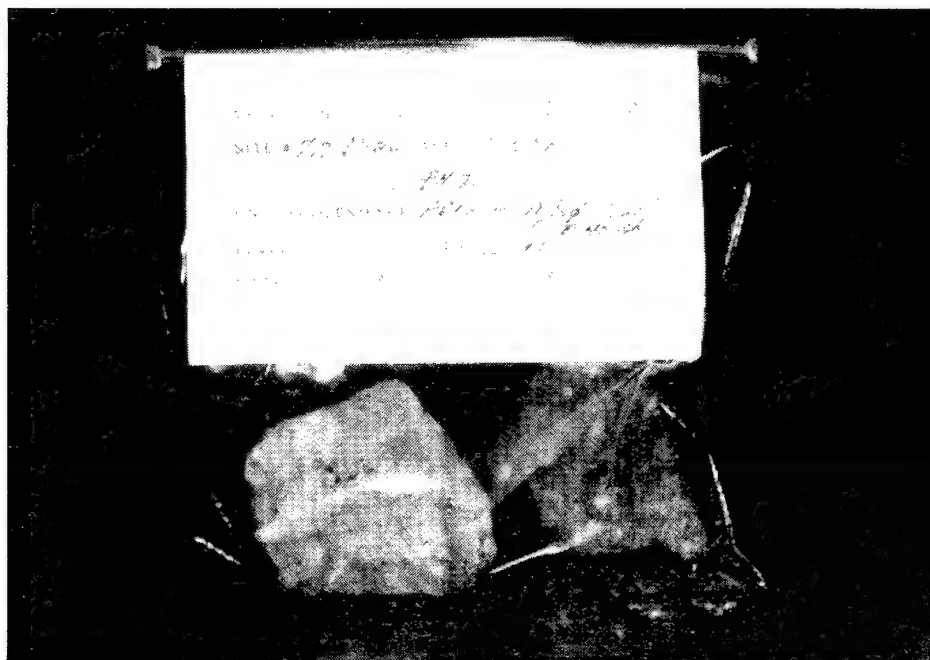


Figure 24. Close-up view of secondary container showing label.

Laboratory Processing and Labeling

All artifacts have been cleaned, but they are not sorted by provenience, material class and/or artifact type. Each bag contains a label; however, only the lithic artifacts (approximately three percent (3%) of the total collection) are labeled directly. Direct labels consist of ink on correction fluid and ink applied directly on the artifact, which then have been coated with clear nail polish. Label information on lithic artifacts is consistent.

Human Skeletal Remains

No human skeletal remains were located in this collection during the assessment.

Records Storage

Associated documentation from the Dover Air Force Base collection housed at MAAR comprises less than one linear foot. Progress reports, administrative files, and original field records and catalogs are stored in a central office. Photographic records are stored in another office. Final reports are kept in the reference library, which is housed in a third room.

Paper Records

Correspondence, contract information, progress reports, administrative files, and original field records and catalogs are stored in four-drawer letter-sized metal file cabinets (Figure 25). "Dead" project files are transferred to standard, one-cubic-foot records boxes after an unspecified period of time. Each file cabinet drawer has a typed label that identifies the project numbers in each drawer. Most of the Dover Air Force Base documentation is kept in nonarchival manila folders, loosely arranged in alphabetical order.

Folders are labeled directly in pen with the project name, project number, and a general description of each folder's contents. Dates, either inclusive or bulk, are not always included in the folder information. Neither the folders nor the paper documents are on acid-free paper.

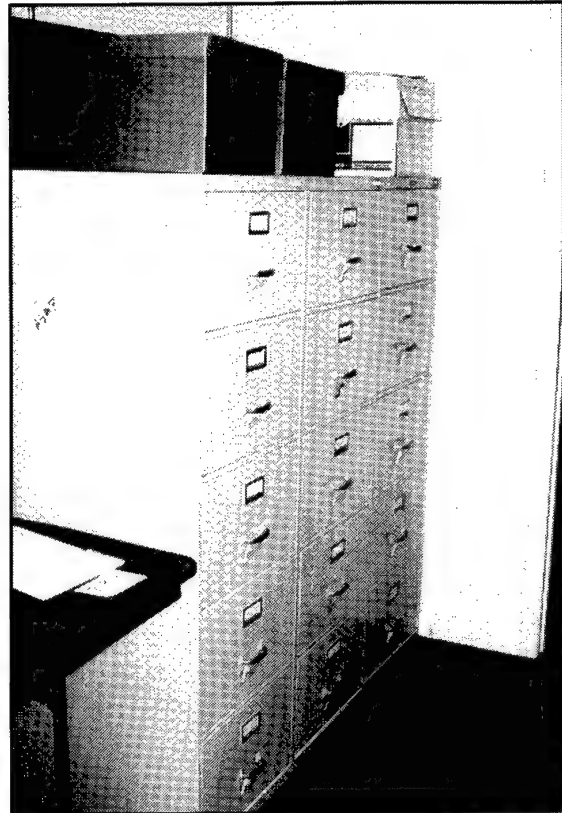


Figure 25. File cabinets where Dover Air Force Base associated documentation is stored. "Dead" files are stored in boxes stacked on cabinets.

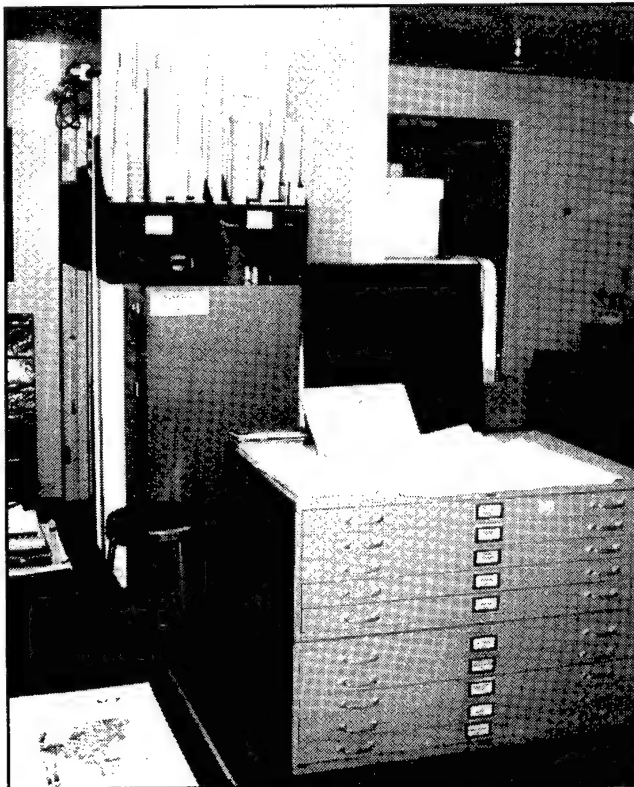


Figure 26. Room where maps and photographic records are stored.

Photographic Records

Photographs are stored in a separate office from paper records (Figure 26). Photographic records for the Dover Air Force Base collection consist of 47 black-and-white photographs, along with corresponding negatives, and 49 color slides. All negatives, prints, and slides are kept in clear file polypropylene sheets and filed in a nonarchival, three-ring binder. Logs for each roll of photographs are interspersed throughout the binder. Photograph logs have been filled out in nonarchival ink and are not on acid-free paper.

Maps and/Oversized Documentation

No maps or oversized documents from Dover Air Force Base projects are curated by MAAR.

Reports

The site report from the Dover Air Force Base collection will be filed in the reference library (Figure 27). Reports are stored on open wooden shelving units. Reports are not on acid-free paper and are bound with nonarchival plastic spiral bindings.

Audio-Visual Records

No known audio-visual records from the Dover Air Force Base collection are housed at MAAR.

Machine-Readable Records

Artifact inventories and draft reports also are kept in a machine-readable format. Backup copies of these records are made weekly on computer tape or disk and then stored in a separate building.

Collection Management Standards

Registration Procedures

Accession Files

Each collection is accessioned by state. Additional accession information is not collected.

Location Identification

No system to identify the physical location of artifacts has been established by MAAR.

Cross-indexed Files

No cross-indexed file system has been implemented by MAAR.

Published Guide to Collections

No published guide to the collection exists.

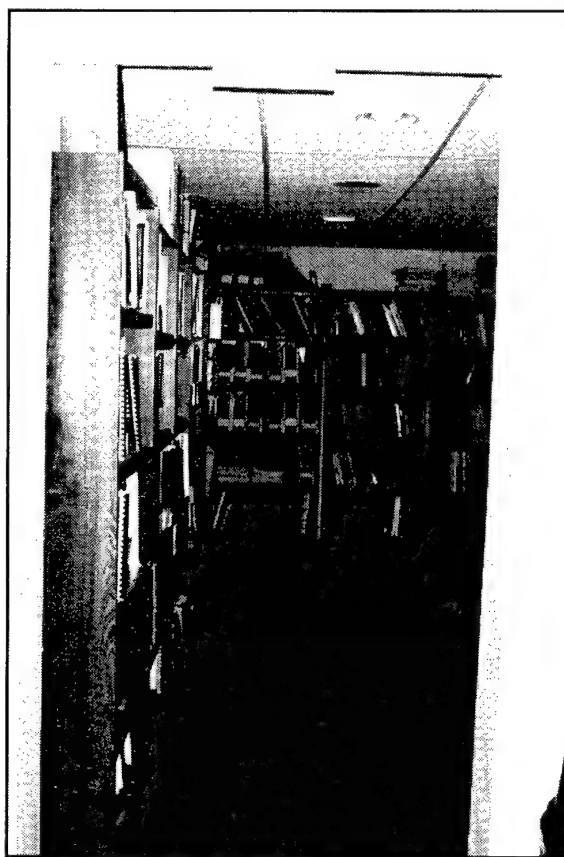


Figure 27. Library where reports are stored.

Site-Record Administration

Collections are arranged primarily by site number and secondarily by project year.

Computerized Data-Base Management

The ANCS system is used for some collections; however, for the overall holdings there is no data-base management system for archaeological collections at this facility.

Written Policies and Procedures*Minimum Standards for Acceptance*

MAAR maintains no minimum standards for the acceptance of archaeological collections.

Curation Policy

No written curation policy exists; staff follows guidelines published by the state of Delaware.

Records-Management Policy

No records-management policy has been written.

Field-Curation Guidelines

No guidelines for field curation have been implemented.

Loan Procedures

No policy regarding loaned material has been written by MAAR.

Deaccessioning Policy

No deaccessioning policy is in effect. When reports are finished, artifacts are returned to the owner and a letter is filed to document the transfer of the material.

Inventory Policy

Each collection is inventoried when it is brought from the field.

Latest Collection Inventory

No collection-wide inventory has been made.

Curation Personnel

MAAR Associates does not employ a full-time curator for archaeological collections. If curation is to be provided, it is written into the contract. Staff members working on each contract are responsible for curation at whatever level dictated in the contract.

Curation Financing

Financing for the curation of artifacts is written into each individual contract.

Access to Collections

Access to the collection is open to staff members on an as-needed basis. No formal policy has been established by MAAR; researchers may request access in writing, and access is considered on a case-by-case basis.

Future Plans

MAAR Associates plans to return the artifacts to Dover Air Force Base after the report is finished. Dover Air Force Base hopes eventually to place all their collections in a single, central repository in Delaware.

Comments

1. MAAR Associates has never planned to curate this collection in perpetuity, so a full 36 CFR Part 79 evaluation of this facility was not conducted.
2. No human remains from archaeological work conducted on Dover Air Force Base property are curated at this facility.

Recommendations

1. Move the Dover Air Force Base collection to Island Field Archaeological Research Center in Dover for proper curation.
2. Label all unlabeled artifacts with indelible ink to prevent information loss if artifacts are separated from provenience data.
3. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
4. Replace secondary artifact containers with four-mil, zip-lock polyethylene plastic bags, and label with indelible ink. Additionally, interior labels made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper) should be labeled in indelible ink and inserted into the polyethylene plastic bags.
5. Remove all contaminants (e.g., staples and paper clips) from the documents.

6. Copy all paper records on acid-free paper and place in acid-free folders labeled in indelible ink. Place all folders in acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
7. Place all photographic materials in archival-quality polypropylene sleeves, and place sleeves in acid-free three-ring binders. Photograph logs should be on acid-free paper in indelible ink.
8. Photographic records should be stored in a stable environment which has humidity and temperature monitoring and control devices.
9. Arrange associated documentation according to modern archival procedures and create a finding aid for the documentation collection.
10. Make a duplicate copy of all associated documentation, either on acid-free paper or on microfilm, and store them in a separate, fire-safe, secure location.

COLLECTIONS AT THE UNIVERSITY OF DELAWARE, CENTER FOR ARCHAEOLOGICAL RESEARCH, NEWARK

DATE OF VISIT: 19 October 1993

PERSONS CONTACTED: Dixon Faulls, Angie Hoseth, and George Miller

The University of Delaware, Center for Archaeological Research is a not-for-profit research center that is part of the University's Department of Anthropology. Personnel at the Center routinely conduct all phases of archaeological research in order to meet the requirements of federal, state, and local legislation mandating archaeological sites threatened with destruction by construction and development projects. Since 1983, the Center has completed over 120 projects—cultural-resource-management plans, site identification and assessment surveys, and large-scale data recovery excavations. CAR also undertakes privately sponsored and volunteer archaeological research studies in order to better understand Middle Atlantic region history and prehistory.

Approximately one cubic foot (1 ft³) of artifacts and less than one linear foot of associated documentation from Dover Air Force Base property are being curated at the Center for Archaeological Research at the University of Delaware. The collection consists of both historic and prehistoric elements, primarily pieces of debitage and glass (see Table 5).

Table 5.
Percentages of Material Classes in Dover Air Force Base
Collection at Center for Archaeological Research at the
University of Delaware at Newark

Material Class	Frequency	Percentage Present
Prehistoric		
Lithics	11	2
Groundstone	1	<1
Debitage	195	40
Ceramics	2	<1
Faunal Remains	4	1
Fire-Cracked Rock	30	6
Other	2	<1
Historic		
Ceramic	36	7
Glass	174	35
Metal	38	8
Faunal Remains	1	<1
Marble	6	1
Total	500	100

Repository

The Center for Archaeological Research (Figure 28)—a 8,000-ft², two-story industrial building located off campus in the Sandy Brae Industrial Complex—contains approximately 6,000 ft² of storage space and 2,000 ft² of office and laboratory space. The building contains offices, a conservation laboratory, restrooms, a collections storage area, a records storage area, and a small research room. Additionally, there are three uncovered loading docks that open into the collections storage area, two on the south wall and one on the north wall.



Figure 28. Exterior view of Center for Archaeological Research.

Structural Adequacy

The building housing the Center for Archaeological Research (CAR), which was constructed in 1990, was not originally designed for the curation of archaeological artifacts. The original owner sold the building to the University of Delaware, and the Anthropology Department established the Center for Archaeological Research in the building in 1991.

The Center is a corrugated metal and brick structure with a corrugated metal roof and a poured-concrete floor (see Figure 28). The collections storage room consists of two levels; a lower concrete floor and an upper wood joist floor. Interior walls of the offices and the records storage area are insulated and covered with gypsum wall board. Interior walls of the collections storage area were constructed in two different ways. Some walls were constructed of (8-x-8-x-16 inch) concrete blocks and some have been finished with exposed two-by-four-inch lumber which has been filled with a plastic-backed insulation. Ceilings of both levels are constructed partially of exposed two-by-six-by-ten inch wood joists, which have been filled with plastic-backed insulation and partially with steel beams bolted together.

Both the electrical system and the plumbing system are three years old. Each system is in good order and is maintained by campus personnel when needed. Heating and air conditioning systems in the building are also three years old and in good working order.

Eighteen (18) windows, all of which are located in the office areas, are protected by window blinds. No windows are located in the collections or records storage areas. On the first level, the collections storage area is divided into two large rooms, which are separated by a steel door. In the first area there is one steel fire door on the south wall and one loading dock door directly opposite the steel door. In the second area there are two loading dock doors—one along the south wall and one along the north wall. The only other access to the outside is the front entrance, which leads to a reception area. The building is structurally sound and meets most of the minimum Federal requirements for the curation of archaeological collections.

Environment

Environmental conditions in this facility are maintained by a central air conditioner and a forced-air heating system which is divided into three zones—an office zone, a collections storage zone, and a records storage zone. Temperature in the collections storage area is maintained at 68° to 74°F. No humidity monitoring or control devices exist in the building. Dust filters are used in the heating system and are replaced regularly. Lighting throughout the facility consists of fluorescent bulbs without ultraviolet screens. Regular maintenance of the plumbing and electrical systems is provided by the University of Delaware, and weekly cleaning is performed by curatorial staff.

Pest Management

The University of Delaware provides the pest management program at CAR. University personnel spray the facility with a professional insecticide on a biannual basis. Between scheduled maintenance activities, curatorial staff watch for signs of pest infestation. No signs of pest infestation were noted by the assessment team.

Security

The University of Delaware Center for Archaeological Research meets most Federal requirements for safeguarding archaeological collections. A 10-ft, chain-link, barbed-wire fence with a locked gate surround the collection storage portion of the building, thus restricting access from the outside. All doors in the collections storage area are secured with keys and dead-bolt locks; the loading dock doors are bolted down when not in use. The front door, although glass, is secured with a double-cylinder dead-bolt lock. In addition, a contact-point intrusion alarm is in place on the front entrance. Although there are eight windows on the ground level, all have window locks to prevent access. Additional security is provided by campus security officers and local police who patrol the area approximately eight times each night. Access to the building is controlled by curatorial personnel who possess a limited number of keys to the building and the collections storage room.

Fire Detection/Suppression Systems

Manual fire alarms, which are placed at various locations throughout the facility, are connected to the local fire department. Additionally, smoke detectors, heat sensors (Figure 29), and fire extinguishers (Figure 30) are located throughout the building. Fire extinguishers are checked regularly by qualified personnel; the last inspection occurred in September 1993.

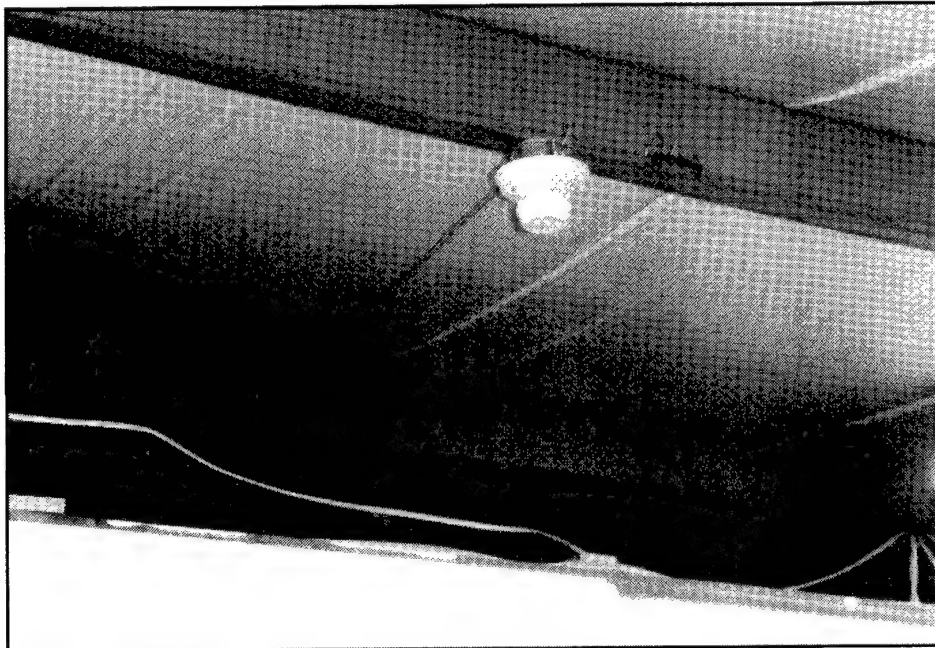


Figure 29. Heat sensor in the second floor collections storage area.

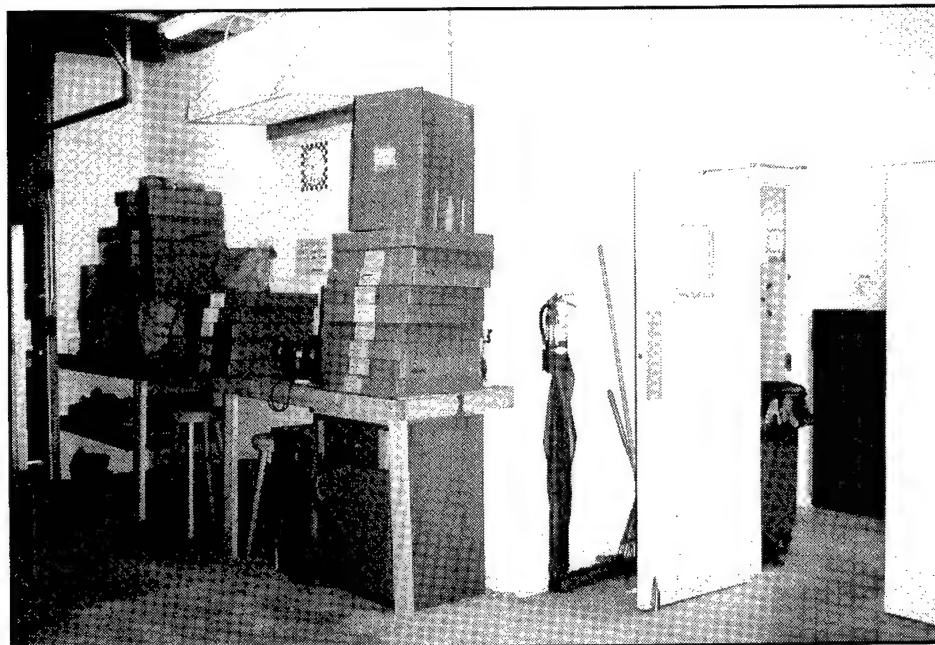


Figure 30. Fire extinguisher on wall of collections storage area.

Artifact Storage

Storage Units

Collections are stored on uncoated wood shelving units, which are constructed of two-by-four-inch lumber bolted together with particle board. Each shelving unit measures four (4) feet long, two (2) feet wide, and 10 feet high, and in most cases, two or more of these units are bolted together to form a row of shelving (Figure 31).

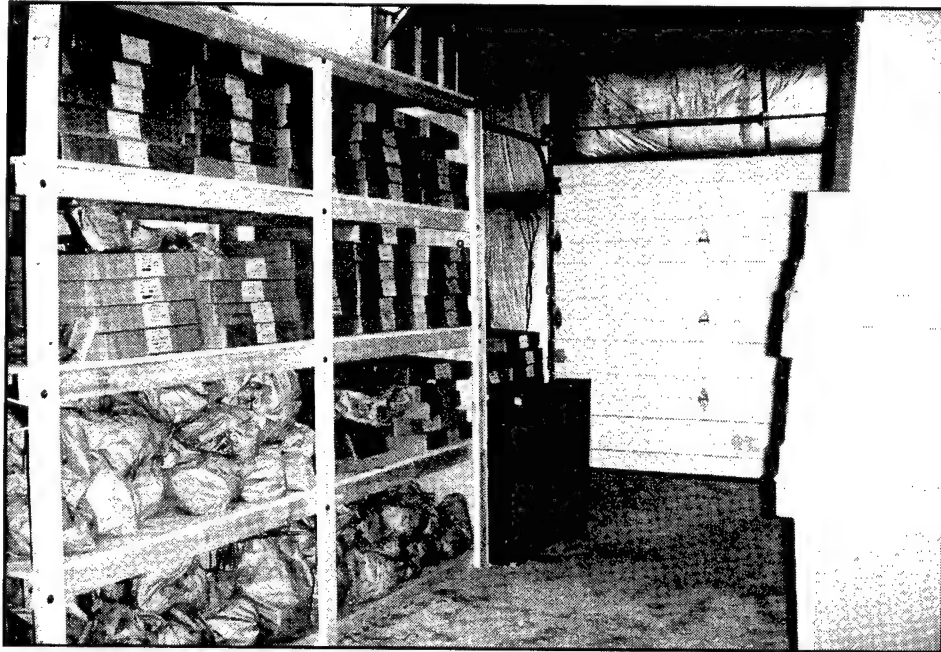


Figure 31. Shelving in the collections storage area.

Primary Containers

Primary containers consist of standard—12 in long, 12 in wide, and three inches high—acidic cardboard boxes. Box frames are folded and stapled with telescoping lids of similar construction. Box labels are acidic paper stapled to each box; label information is recorded in marker (Figure 32). Labels include project and site names; additional information may or may not be included on individual labels.

Secondary Containers

Artifacts in the Dover Air Force Base collection are packaged in plastic zip-lock bags, which are then placed inside acidic paper bags. The top of the paper bags are folded to secure the contents. In two cases, however, artifacts had fallen out of their containers and were loose in the box.

Many (at least 25%) of the plastic bags have puncture damage, and many of the bags have internal labels on acidic paper. All of the paper bags have been stamped with a pre-inked label with

information fields for the following information: accession number, bag number, site name/number, project name, provenience information, date of excavation, excavator, and artifact description. Information fields have been filled out with either marker or ballpoint pen (Figure 33).

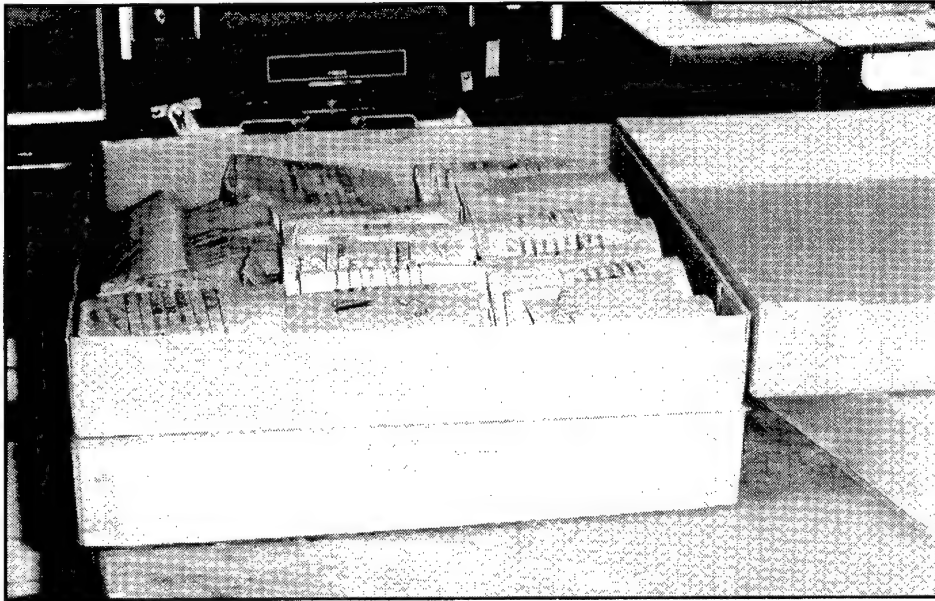


Figure 32. View of primary container. Note label.

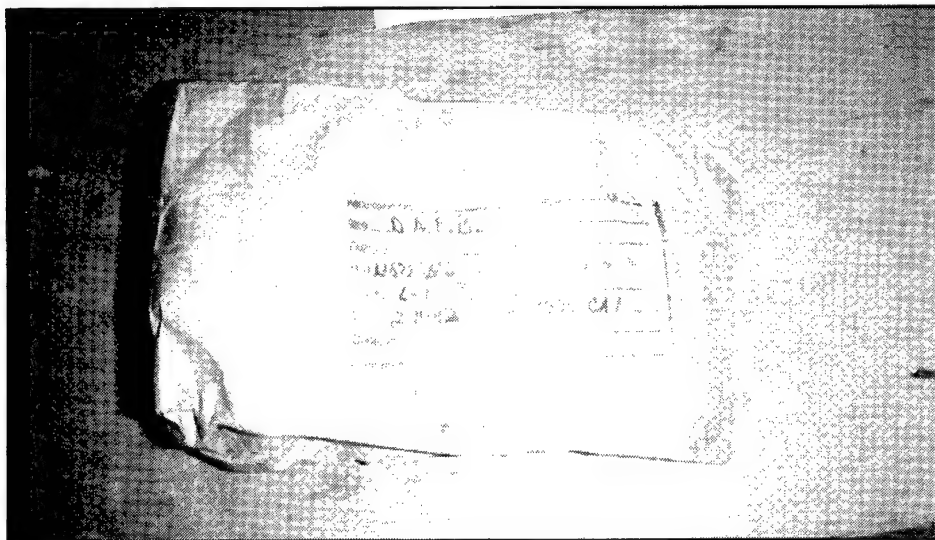


Figure 33. View of secondary container. Note label.

Laboratory Processing and Labeling

All artifacts in the Dover Air Force Base collection are cleaned and sorted by provenience and material class; however, none have direct labels. If an artifact becomes separated from its secondary container, it would be difficult to locate the supporting documentation.

Human Skeletal Remains

No human skeletal remains from Dover Air Force Base are being curated at the Center for Archaeological Research.

Records Storage

Associated documentation from archaeological projects on Dover Air Force Base that are curated at the University of Delaware Center for Archaeological Research Center comprise less than one (1) linear foot. Permits, time sheets, tax information, correspondence, maps, and field records are stored in a central location within the facility (Figure 34). No special storage arrangements are made for photographs.

Paper Records

Correspondence, contract information, progress reports, administrative files, original field records and catalogs, permits, and draft reports are arranged in a loose alphabetical order in letter-sized, four-drawer metal file cabinets (see Figure 34). Each drawer has a typed label, on nonarchival paper, that designates the contents of each drawer. Most of the material is kept in nonarchival acidic folders, but some of the material is loose in the drawer. One bound notebook holding field records also is stored in the file cabinet drawer.

Folders are labeled directly in pen with the project name, folder description, and date. Documentation housed in the Center for Archaeological Research is separated by project, and oversized material is stored in map cases. No other separation is apparent. Photographic records are kept with the paper records from the same project.

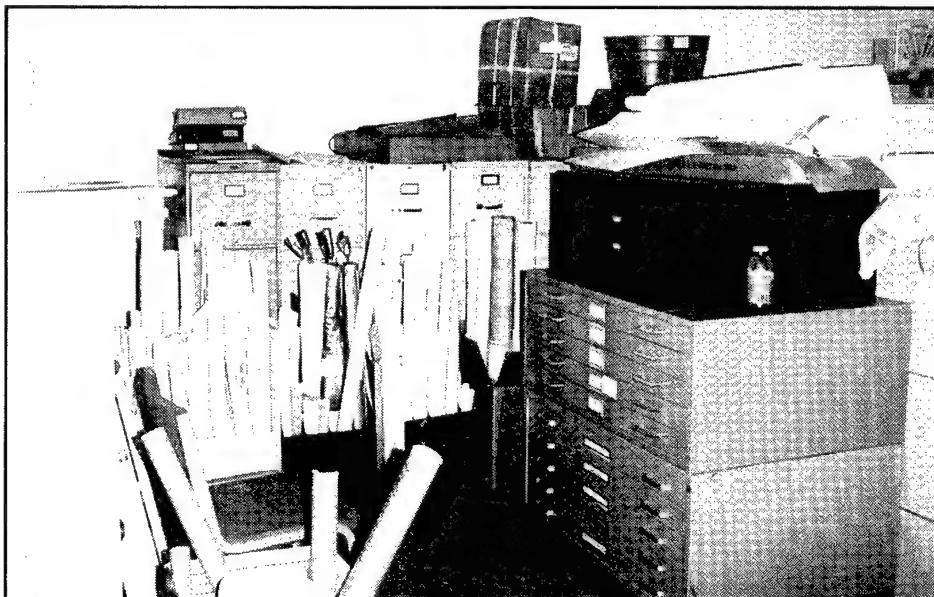


Figure 34. Documents storage room.

Photographic Records

Photographic records for the Dover Air Force Base collection consist of 24 black-and-white prints of the excavation and the corresponding negatives. Neither the photographs nor the negatives are placed in any type of sleeves for archival preservation. Photographs and negatives are in a manila folder and are stored with the paper documentation. Additional photographic records include a notebook, which is stored with the paper documentation in the metal file cabinet, containing 25 color slides in archival "Clear-View" sleeves.

Maps and/or Oversized Documentation

Maps associated with the Dover Air Force Base collection have been folded and placed in a manila folder in the metal file cabinet along with the paper documentation. Eventually, these oversized maps will be unfolded and stored in flat in a map-storage case (Figure 35).

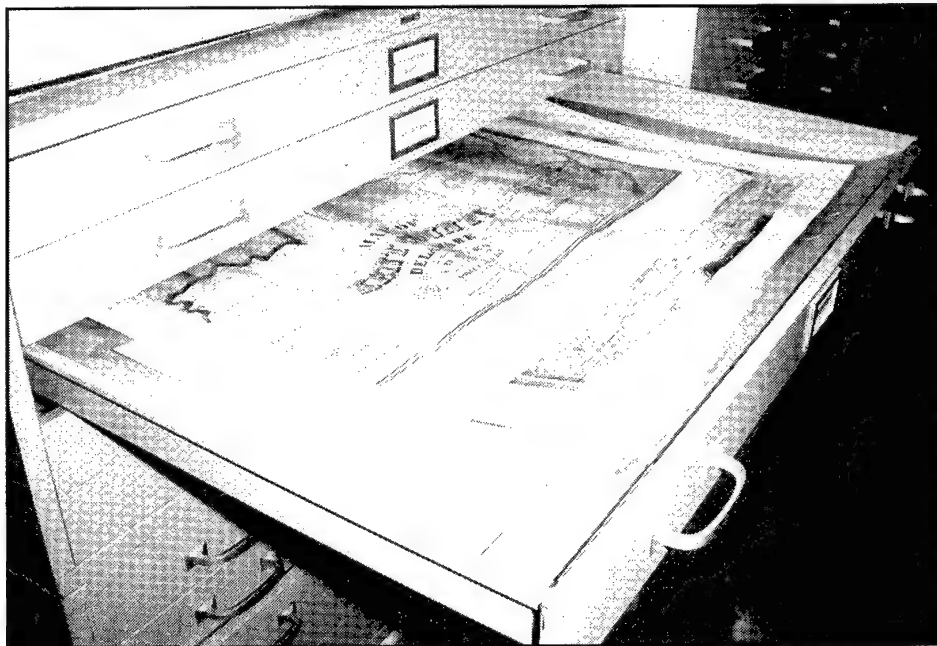


Figure 35. Map cases where Dover Air Force Base material will be curated.

Reports

The site report generated from the Dover Air Force Base excavation is kept, along with draft copies, in the metal file cabinet that holds the paper documentation.

Audio-Visual Records

No known audio-visual records from the Dover Air Force Base collection are housed at the Center for Archaeological Research.

Machine-Readable Records

Safety copies of all associated documentation, excluding oversize maps, have been put on a computer disk and are being stored on site in a fire-resistant cabinet. Safety copies of associated documentation are made as often as deemed necessary by curatorial personnel.

Collections Management Standards

Registration Procedures

Accession Files

Materials are processed and accessioned simultaneously upon receipt.

Location Identification

Location information is identified in the accession file.

Cross-indexed Files

A project is currently underway to enter all information into a collection catalog data base, which will contain several searchable fields.

Published Guide to Collections

The Center for Archaeological Research has no published guide to the collections.

Site-Record Administration

The Smithsonian Institution's River Basin Survey trinomial site-numbering system is in use.

Computerized Data-Base Management

A project is currently underway to enter information into a collection catalog data base.

Written Policies and Procedures

Minimum Standards for Acceptance

No minimum standards for acceptance have been established.

Curation Policy

No written curation policy exists; staff members follow standards outlined in 36 CFR Part 79.

Records-Management Policy

A records file is maintained in a machine-readable format.

Field-Curation Guidelines

Field-curation guidelines have not been formalized.

Loan Procedures

No written policy exists; Dr. Jay Custer, director of CAR, decides, on a case-by-case basis, which persons may borrow material.

Deaccessioning Policy

To date, CAR has not deaccessioned any material.

Inventory Policy

None, but the staff is currently developing an inventory policy for the repository.

Last Collection Inventory

A box-by-box inventory was completed in April 1993.

Curation Personnel

Dixon Faulls is currently acting as curator, in addition to his other duties. Two full-time staff members assist him with accessioning, processing, and curating archaeological collections. None of these individuals have any formal training in curation, although all are trained archaeologists or anthropologists.

Curation Financing

Curation activities are financed through grants which have been awarded to the University of Delaware Center for Archaeological Research. No permanent funding for curation exists. Curatorial staff believe that approximately \$80,000 per year is needed to meet current curatorial responsibilities.

Access to Collections

Access to the collection is controlled by curatorial personnel. Researchers must make arrangements, in writing, with either Dr. Custer or the staff. Any requests for the loan of material must be made in writing to Dr. Custer.

Future Plans

Future CAR plans include (1) completion of the master data base for collections and associated documentation, (2) improving the physical facilities to meet standards listed in 36 CFR Part 79, and (3) expanding the facility as demands for additional storage space increase.

Comments

1. No human skeletal remains from archaeological work conducted on Dover Air Force Base property are being curated at the Center for Archaeological Research.
2. The University of Delaware Center for Archaeological Research is a professionally managed institution that meets most Federal requirements for long-term curation of archaeological collections. Air Mobility Command, however, plans to remove all Dover Air Force Base collections and place them in a central repository in Delaware. Until this transfer is arranged, the Dover Air Force Base collection stored in this facility should be considered secure.

Recommendations

1. Move the Dover Air Force Base collection to Island Field Archaeological Research Center in Dover for long-term curation.
2. Label all artifacts directly in indelible ink to prevent information loss if artifacts are separated from provenience data.
3. Replace secondary artifact containers with four-mil, zip-lock, polyethylene plastic bags, and label with indelible ink. Additionally, interior labels made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper) should be labeled in indelible ink and inserted into the polyethylene plastic bags.
4. Place polyethylene bags into acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
5. Remove all contaminants (e.g., staples and paper clips) from the documents.
6. Copy all paper records to acid-free paper and place in acid-free folders labeled in indelible ink. Place all folders in acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
7. Properly store photographs and negatives in archival polypropylene sleeves; identify photographs in a descriptive log on acid-free paper. Place logs and photographic materials into acid-free, three-ring binders.
8. Photographic records should be stored in a stable environment which has humidity and temperature monitoring and control devices.
9. Flatten oversized material and place in map storage cases for long-term curation.
10. Arrange associated documentation according to modern archival procedures and create a finding aid for the documentation collection.

COLLECTIONS AT THE ISLAND FIELD ARCHAEOLOGICAL RESEARCH CENTER, DOVER, DELAWARE

DATE OF VISIT: 21 October 1993

PERSON CONTACTED: Charles Fithian, Curator of Archaeology

Less than one cubic foot (1 ft³) of artifacts, and no associated documentation, from two excavations on Dover Air Force Base are stored at the Island Field Archaeological Research Center. One collection is exclusively prehistoric; and one collection consists of both historic and prehistoric artifacts. See Table 6 for the artifact material classes in these collections.

Table 6.
Percentages of Material Classes in Dover Air Force Base
Collections at Island Field Archaeological Research Center

Material Class	Frequency	Percentage Present
Prehistoric		
Lithics	39	18
Groundstone	22	10
Debitage	119	56
Ceramics	7	3
Historic		
Ceramics	17	8
Glass	5	2
Metal	5	2
Total	214	100

Repository

The Island Field Archaeological Research Center is a 6,658-ft², two-story building located just off the coast of Delaware. It contains approximately 5,638 ft² of storage space for collections and associated documentation and 1,020 ft² of office and laboratory space. The interior of the building is divided into several offices, a conservation laboratory, restrooms, a collections storage area, a records and map storage area, a photographic records storage area, a library, and a research room.

Structural Adequacy

Constructed in 1972, the Island Field Archaeological Research Center (Figure 36) was originally built to protect the Island Field site—which consists of over fifty (50) burials—during excavation.

Although it was built to protect the excavation, office space for personnel, a conservation laboratory, and a storage space for artifacts recovered from the excavation were included in the building. Later renovations included a reorganization of space and the creation of a processing area outside of the laboratory. In 1993 the Museum was closed to the public, and the facility was rededicated almost exclusively to collections storage.

The Island Field facility is a corrugated metal and steel structure with a corrugated metal roof and a poured-concrete floor (see figures 36 and 37). The collections storage area consists of two levels—a lower concrete floor and an upper metal-joist floor. Interior walls of the offices and the records storage area are insulated and covered with gypsum board. Ceilings in the offices and the records storage area are suspended acoustical tiles. The walls and ceiling in the collections storage area are constructed primarily of metal beams filled with exposed plastic-backed insulation; however, portions of the walls in the collection storage area are cement blocks. Part of the ceiling over the excavation area is constructed of metal beams and the remainder is suspended acoustical tiles. Walls surrounding the excavation site are two-by-four-inch studs covered with wood paneling.

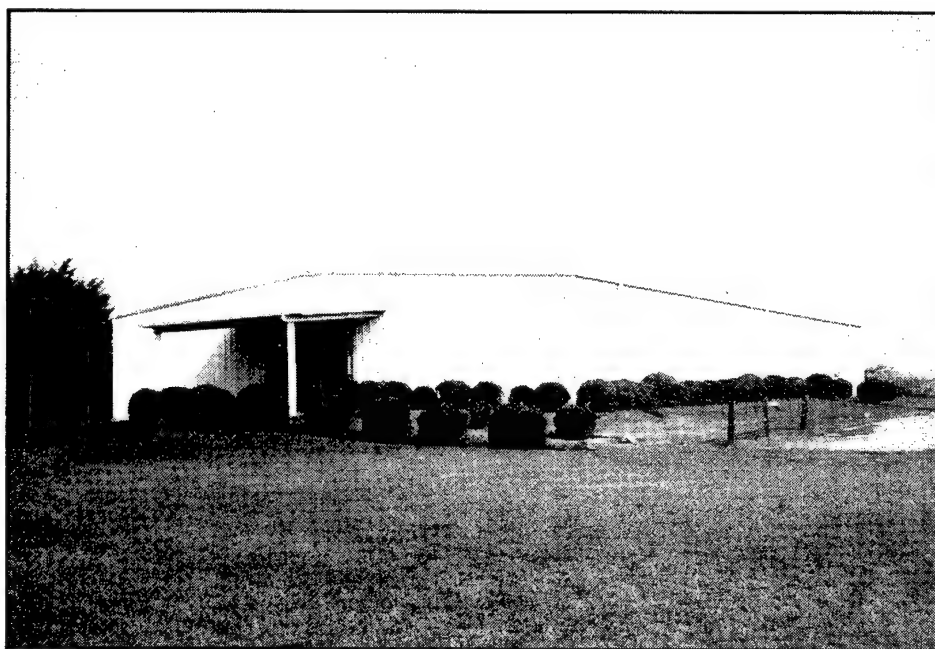


Figure 36. Exterior view of Island Field Archaeological Research Center.

Plumbing, electrical and heating systems are as old as the building (1972). Air conditioning in the facility consists of central air conditioning downstairs and a single window unit on the second floor of the collections storage area, both of which are approximately two years old. Maintenance is performed on these systems as necessity dictates.

Although there are six exterior doors in the facility, there is only one single-pane, second-floor window in the entire building. It has been sealed with a piece of sheet metal. The one exterior fire escape leads to this sealed window (see Figure 37). The Island Field Museum building is structurally sound.

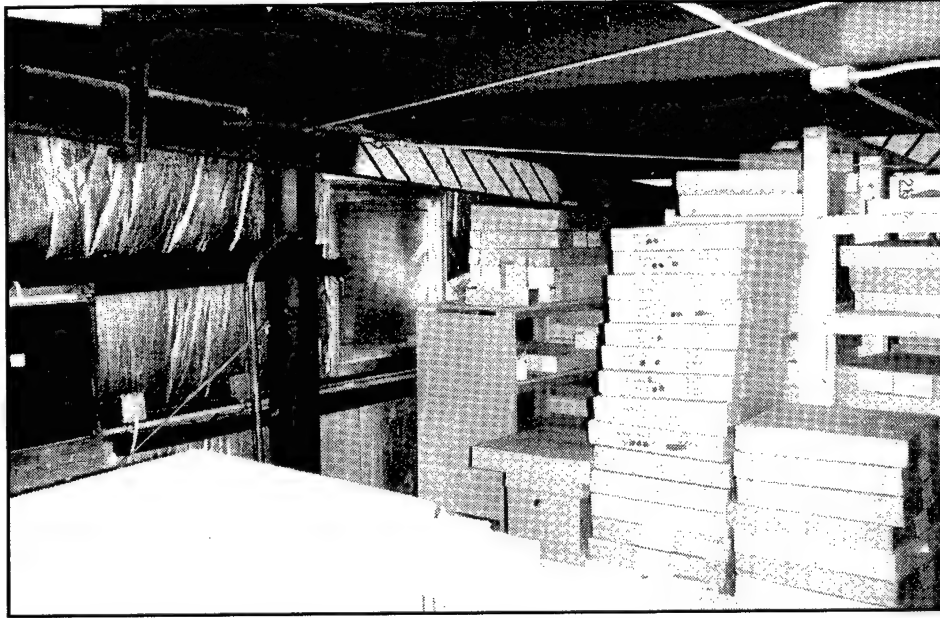


Figure 37. View of the collection storage area at the Island Field Archaeological Research Center. Note the sealed window.

Environment

A single HVAC system controls the environmental conditions. The Museum staff cannot control the humidity in the repository, but it is monitored with a hygrometer. The temperature in the collections storage room is maintained at 73-78° F, and the humidity generally ranges from 50 to 60%. Dust filters are in place in the heating system (Figure 38) and are changed regularly by the curatorial staff. Lighting throughout the facility consists of unfiltered fluorescent lights. Weekly cleaning in the collections storage area is performed by curatorial staff, and the offices are maintained by professional janitorial staff on an as-needed basis.

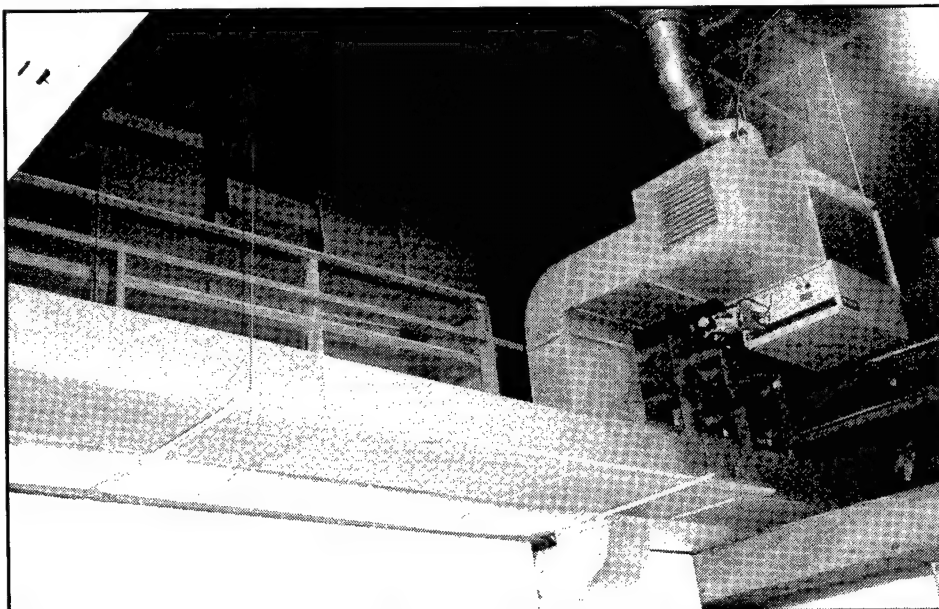


Figure 38. View of the heating unit in the collection storage area.

Pest Management

Pest management activities include both monitoring and control. Regular cleaning and rodent traps are the primary methods of pest control. When necessary, chemical insecticides are used. During the evaluation the assessment team noted an insect nest in an open vent in the collections storage area. Curatorial staff stated that periodically problems arose with rodents or insects, but steps were immediately taken to remove this hazard to the collections.

Security

The Island Field Archaeological Research Center meets most of the Federal requirements for safeguarding archaeological collections. A chain-link, barbed-wire fence with a locked gate surrounds the grounds, thus restricting access from the outside (Figure 39). Additionally, the building is protected by intrusion alarms wired to the city of Dover police department and key-locked doors. The only window in the facility is blocked by a sheet of metal. Access to the building is controlled by curatorial personnel, who possess a limited number of keys to the building and the collections storage room.

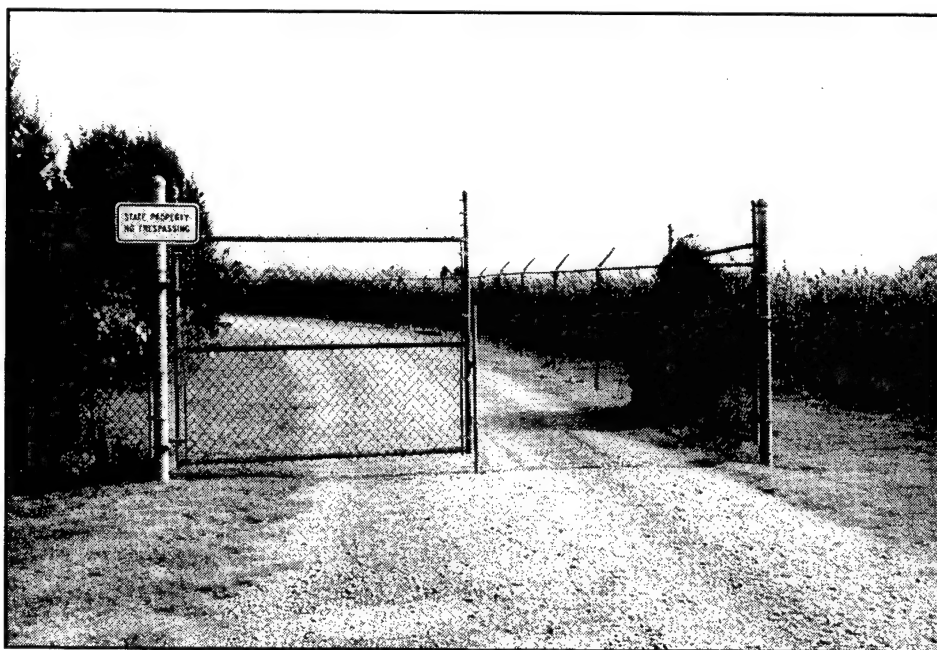


Figure 39. Gate surrounding the facility grounds.

Fire Detection/Suppression Systems

A fire alarm wired to the local fire department protects the entire building. Smoke detectors and fire extinguishers, which are checked regularly by qualified personnel, are located throughout the building.

Artifact Storage

Storage Units

Collections curated in the collections storage area are stored on unfinished wood shelving units, which were not made to be dismantled and moved, constructed of two-by-four-inch lumber and particle board (Figure 40). Each individual unit is five (5) feet long, 1.75 in wide, and 10 ft high. In most cases, two or more of these units are bolted together to form a row of shelving. Baked enamel shelving units are placed around the excavation site to provide additional storage space.

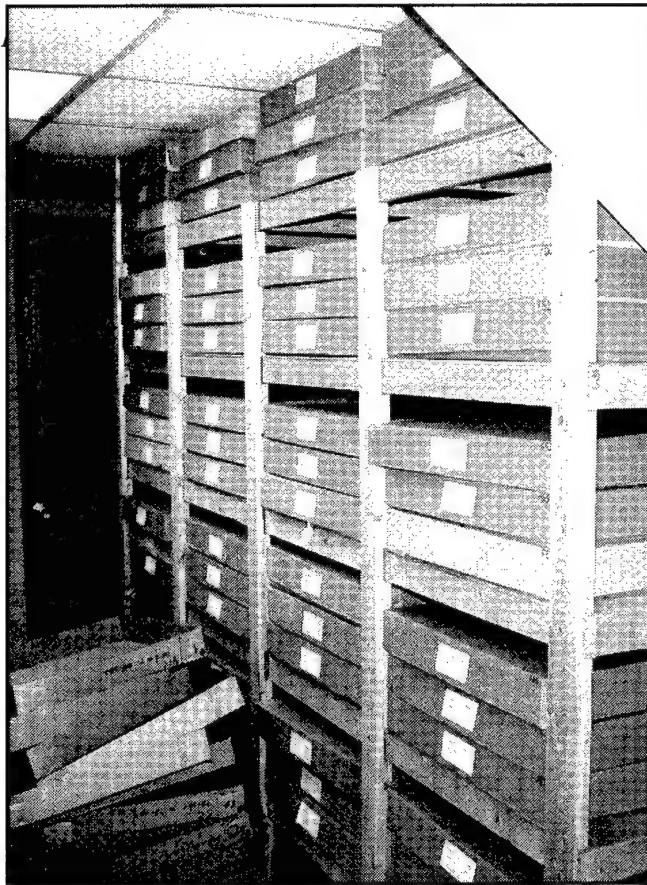


Figure 40. Storage units and primary containers in the collections storage area.

Primary containers consist of standard—12 in long, 12 in wide, and three inches high—acidic cardboard boxes. Box frames, which are folded and stapled, have telescoping lids of similar construction. Box labels are constructed of acidic paper that have been filled out with a marker and stapled to the lid of the primary container. Label information consists of an internal number assigned the collection and the trinomial site number.

Secondary Containers

Secondary containers consist of plastic, zip-lock bags, some of which were placed in small, open, acidic cardboard boxes (Figure 41). Most of the zip-lock bags are labeled directly in marker. Label information includes site number and provenience information. In a few isolated cases, an acidic paper label, which is filled out in marker, is enclosed in the zip-lock bag or is loose in the small boxes.

Laboratory Processing and Labeling

All artifacts are cleaned and sorted by material class. In addition, all artifacts are labeled directly, both on correction fluid and ink alone.

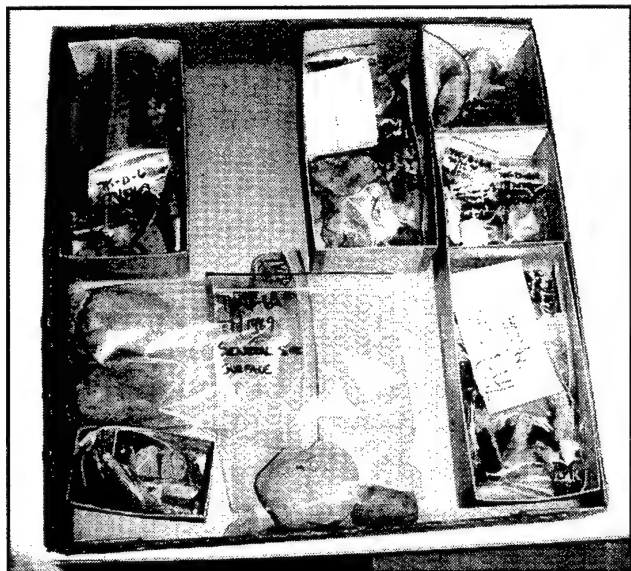


Figure 41. Secondary containers holding Dover Air Force Base collections.

Human Skeletal Remains

No human skeletal remains from Dover Air Force Base are being curated at the Island Field Archaeological Research Center.

Records Storage

No associated documentation accompanies the Dover Air Force Base collections; however, there are extensive records storage areas within this facility. Paper records are kept in lateral file cabinets (Figure 42). In the same room several flat map storage cases are being used to store oversized materials (Figure 43). All photographic records are processed archivally and kept in a separate area (Figure 44). Finally, an extensive collection of reports and other reference material are stored in the facility's library (Figure 45).

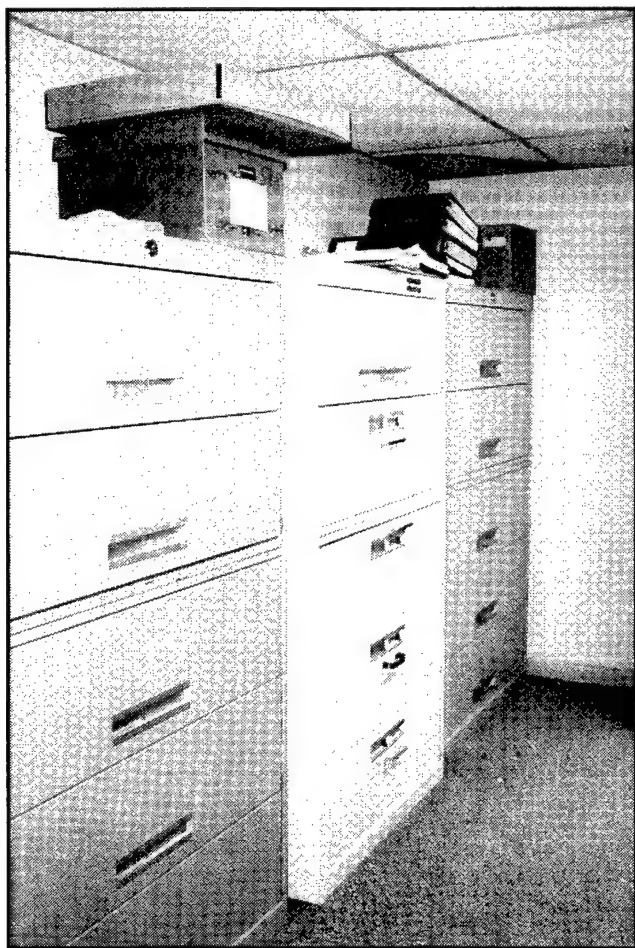


Figure 42. Lateral filing cabinet housing documentation.

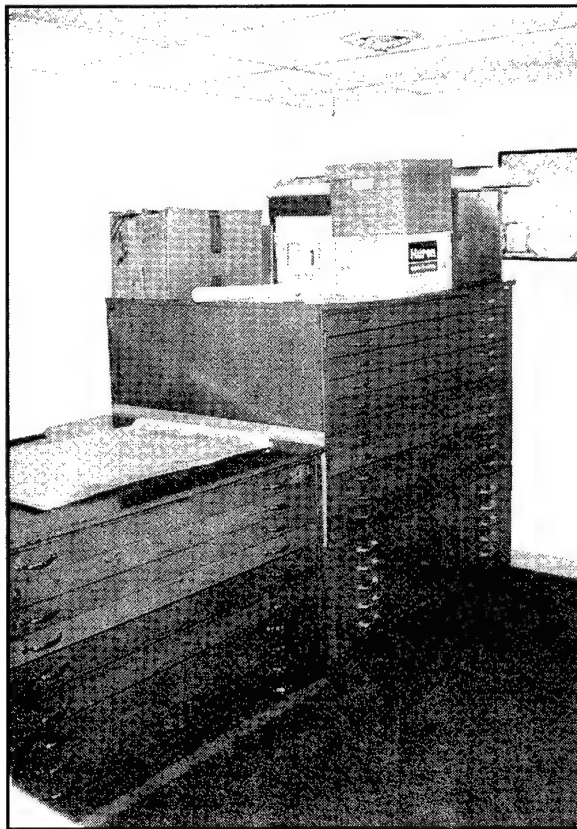


Figure 43. Flat map storage cases.

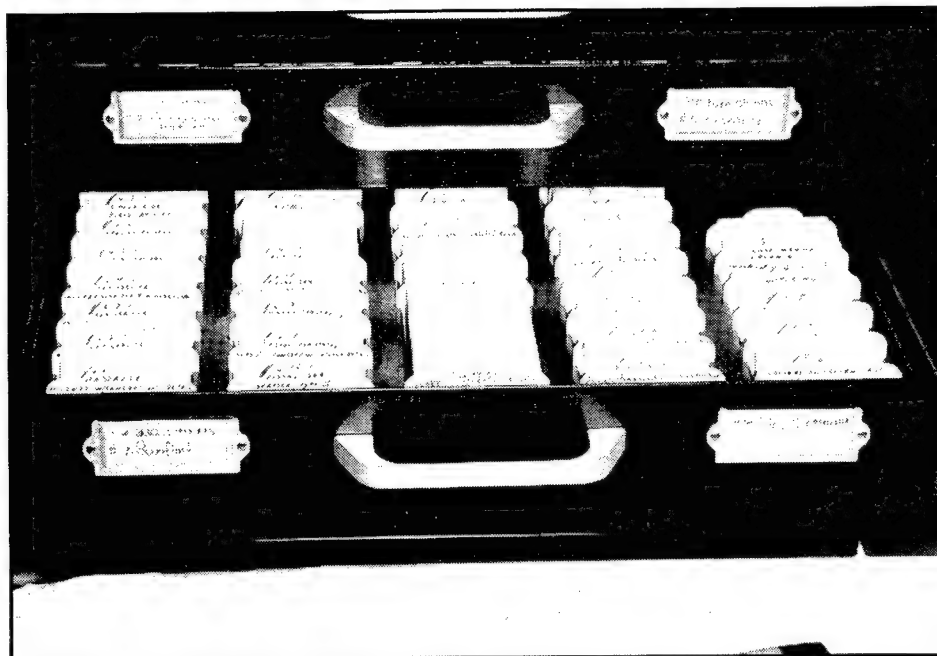


Figure 44. Processed slides in the photograph storage room.

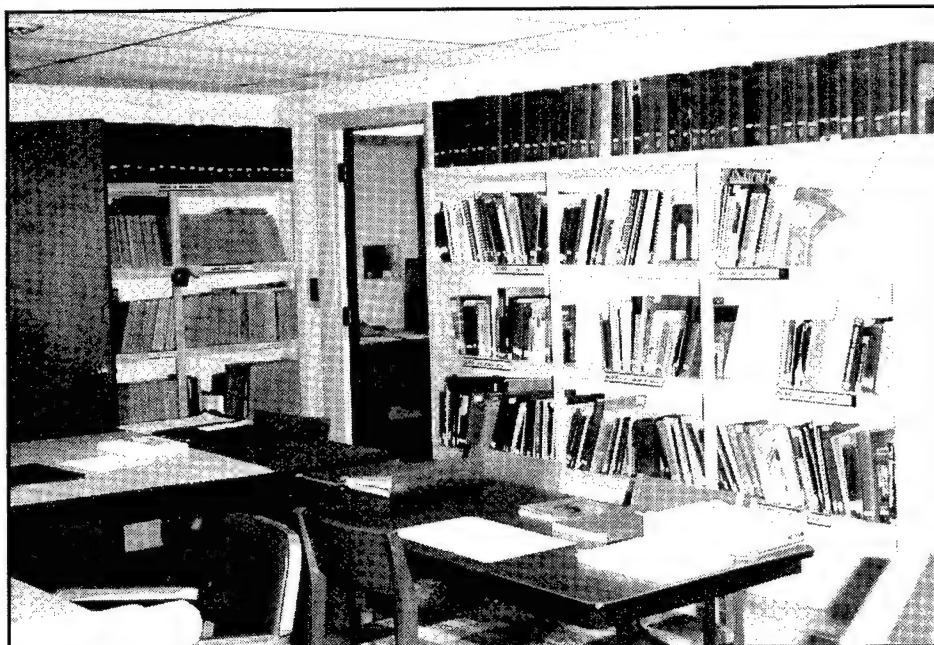


Figure 45. Library at the Island Field Archaeological Research Center.

Collections Management Standards

Registration Procedures

Accession Files

All materials are accessioned upon receipt.

Location Identification

Location information is identified in the accession file.

Cross-indexed Files

Currently, Island Field personnel are working on a master catalog for collections using 4th Dimension Data base software package.

Published Guide to Collections

No published guide for the entire collection exists; however, some of the smaller survey collections have published guides.

Site-Record Administration

The Smithsonian Institution's River Basin Survey trinomial site-numbering system is in use, and records are organized by state site file system.

Computerized Date-Base Management

Currently, most of the records files and inventories are being maintained in a D-Base software program which is being updated with the 4th Dimension Data base software.

Written Policies and Procedures

Minimum Standards for Acceptance

Minimum standards for acceptance of collections are detailed in the Collections Management Policy of Delaware State Museums, of which the Island Field Archaeological Research Center is considered a support site (see Appendix III).

Curation Policy

Curation of artifacts is specifically outlined in the Collections Management Policy of Delaware State Museums (see Appendix III).

Records-Management Policy

The records-management policy is detailed in the Collections Management Policy of Delaware State Museums (see Appendix III).

Field-Curation Policy

The field-curation policy is outlined in the Delaware State Museums Interim Sampling and Curation Policy (see Appendix III).

Loan Procedures

All loans must be approved by the collections committee and must be properly documented. See Appendix III for loan criteria.

Deaccessioning Policy

All material under consideration for deaccession must be approved by the collections committee. See Appendix III for deaccessioning criteria.

Inventory Policy

Materials are inventoried upon receipt, and an annual inventory of the entire holdings is mandated by the Collections Management Policy of Delaware State Museums. In addition, infrequent spot checks also are conducted.

Last Collection Inventory

At the time of the evaluation, Island Field personnel were conducting an inventory of their holdings.

Curation Personnel

The staff of the Island Field Archaeological Research Center consists of a single person, Charles Fithian. Mr. Fithian is responsible for all curation, accessioning, and processing activities. He has a bachelor's degree in history, and he has completed some graduate courses in archaeology and anthropology. Mr. Fithian has worked in the archaeological field for 16 years.

Curation Financing

Curation activities are financed through funds provided by the state of Delaware. The budget, therefore, fluctuates from year to year. Mr. Fithian is petitioning for additional funding which would be used for equipment, supplies, and additional staff.

Access to Collections

Access to the collection is controlled by Mr. Fithian. Researchers must make arrangements with him, preferably in writing.

Future Plans

The state of Delaware currently has plans for a new facility for archaeological curation, which could be completed as soon as 1995. This facility would meet all Federal curation requirements and would provide the extra storage space needed by the Island Field facility.

Comments

1. The Island Field Archaeological Research Center is structurally sound.
2. Environmental controls are not present on the second story of the facility.
3. Fire suppression system consists solely of fire extinguishers.
4. Fire detection system is consistent with 36 CFR 79 standards.
5. Lighting in the collections and records storage areas do not have ultraviolet filters in place.
6. Storage units are constructed primarily of uncoated wood.
7. Primary and secondary containers, and their labels, are constructed of acidic materials.
8. The single fire escape—and only exit from the second floor—is blocked by sheet metal.
9. All necessary registration procedures are in place.
10. All necessary written policies and procedures are in place.
11. The records-management system and protocols for curation of documentation are excellent.
12. No full-time curator is employed at this repository.
13. No human remains from archaeological work conducted on Dover Air Force Base property are being curated at the Island Field Archaeological Research Center.
14. The Island Field Archaeological Research Center is a professionally managed institution that meets most Federal requirements for the long-term curation of archaeological collections. The Dover Air Force Base collections stored in this facility should be considered secure.
15. Air Mobility Command plans to remove all Dover Air Force Base collections from where they are currently curated and place them in a central repository in Delaware. Presently, the Island Field Archaeological Research Center is the repository most appropriate for curating these collections.

Recommendations

1. Proper accession records for the Dover Air Force Base collections should be created and maintained. Any available provenience information should also be identified.
2. Air Mobility Command and Dover Air Force Base should make arrangements to move all Dover Air Force Base collections to the Island Field Archaeological Research Center to be curated in perpetuity.
3. Replace all secondary artifact containers with four-mil, zip-lock, polyethylene plastic bags, and label with indelible ink. Additionally, interior labels made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper) should be labeled in indelible ink and inserted into the polyethylene plastic bags.
4. Replace all acidic cardboard boxes with acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
5. Place primary containers on enamel-metal shelving units.
6. Upgrade the environmental control system, and install humidity control and monitoring devices in the collections storage area.
7. Place ultraviolet sleeves on fluorescent lights.
8. Check with the Dover Fire Department and ensure that the blocked fire escape is not a violation of the city fire code.
9. Install a sufficient fire suppression system in the facility.

**SCOTT AIR FORCE BASE,
ILLINOIS**

COLLECTION SUMMARY

(1) Volume of Artifact Collections: Less than one cubic foot (1 ft³)

On base: One artifact

Off base: None

Compliance Status: The single artifact in the collection will require complete rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: 0.75 linear feet

On base: 0.75 linear feet

Off base: None

Compliance Status: All collections of associated documentation and reports will require complete rehabilitation to comply with existing Federal guidelines and standards for archival preservation.

(3) Human Skeletal Remains: No human skeletal remains are being curated in Scott Air Force Base collections.

(4) Status of Curation Funding: Funding for the curation of archaeological collections is available as an operations and support (O & S) environmental compliance expense.

(5) Status of Installation Repository: No archaeological repository has been dedicated to curate Scott Air Force Base collections.

INTRODUCTION

Scott Air Force Base, which is located seven miles east-southeast of Belleville, Illinois, is the headquarters for Air Mobility Command. The 3,297-acre installation which became active in 1917, served as a training facility during World War I and World War II and currently is home to three major command missions with worldwide commitment—C-9 medical aircraft, C-12 and C-21 support aircraft, C-140 flight checking aircraft, and H-60 Army (Reserve) helicopters.

Archaeological investigations on Scott Air Force Base are the responsibility of the Cultural and Natural Resources manager. A single historic artifact and 0.75 linear feet (11 files) of associated documentation comprise the Scott Air Force Base archaeological collection. The artifact, a World War II era soda bottle, is stored in a box under a desk. Associated documentation is stored in a file cabinet in the Environmental Management Office (Building 530). Presently, these documents are operational files and are filed according to Air Force regulations. When these files are retired, however, they should be part of the historical record and curated accordingly.

COLLECTIONS AT SCOTT AIR FORCE BASE ENVIRONMENTAL FLIGHT

DATE OF VISIT: January 4, 1994

PERSON CONTACTED: William Calvert, Natural and Cultural Resources Manager for Scott Air Force Base.

REPOSITORY

The Environmental Management Office (Building 530) is a 5,000-ft² office building that consists of offices, documentation storage areas, and restrooms.

Structural Adequacy

Building 530 (Figure 46) was constructed during World War II, and was completely renovated in 1986. The exterior is constructed of wood covered with metal siding, and the foundation is made of concrete blocks. The roof, which is seven years old, consists of wooden trusses covered with asphalt shingles. Interior walls are two-by-four-inch wood studs covered with gypsum board. Individual office spaces are divided by modular office partitions and furniture. Utility systems such as plumbing and electrical were replaced during the 1986 renovations. Overhead water pipes are located throughout the building. In 1991 water dripped through the ceiling tiles and on to the desk under which the artifact is stored.

Associated records are stored in the reception area, which has a single two-by-four-feet, wood-framed, west-facing window protected by a vertical blind. Access into Building 530 is through

a west-facing glass door with a metal frame. The office where the artifact is stored has one window which faces east and is protected by a venetian blind.



Figure 46. Exterior view of the west side of Building 530.

Environment

Central heating (natural gas) and air conditioning units were replaced in 1986. Temperature is maintained at a level that is comfortable to the staff. No humidity monitoring or control devices exist in the building. Dust filters are used in the heating and cooling systems and are maintained on a regular basis. Lighting throughout the building consists of fluorescent bulbs without ultraviolet screens. Base personnel are responsible for upkeep, repairs, and cleaning on an as-needed basis.

Pest Management

Pest control is provided by the Scott Air Force Base Pest Management Department on an as-needed basis. No signs of pest infestation were noted by the assessment team during the evaluation.

Security

Access to the base is monitored by 24-hour security police that are stationed at the two entrance gates. Building 530 is locked with both key and dead-bolt locks when the building is empty. Windows are accessible from the ground but all have locks. Personnel who have offices in the Environmental Management Building have access to the documentation and artifact storage areas. No evidence of unauthorized entry was seen, and there are no reported cases of unauthorized entry in the past.

Fire Detection/Suppression Systems

Building 530 is protected by manual fire alarms placed at various locations throughout the facility. Fire alarms are wired to the Scott Air Force Base Fire Department, located two blocks away. Building 530 also is equipped with smoke detectors (Figure 47) and fire extinguishers throughout the building. Walls and ceiling tiles are fire retardant. Additionally, personnel are required to participate in fire-extinguisher training sessions.



Figure 47. Heat sensor on ceiling in Building 530.

Artifact Storage

Storage Units

The artifact is stored in an acidic, stapled, open, cardboard box, which is located on the floor under Mr. Calvert's desk. Other items such as hard hats and saws are also kept in this box (Figure 48).

Secondary Container

The secondary container is a plastic, nonarchival zip-lock bag. It is labeled with a marking pen but is showing signs of wear. Label information includes the artifact number, site name/number, project name, provenience information, date of excavation, excavator, and artifact description (Figure 49).

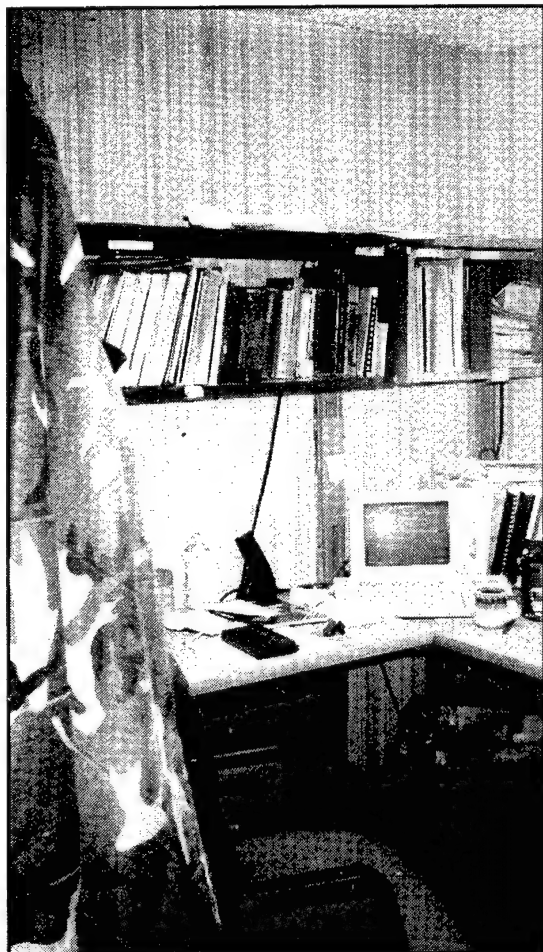


Figure 48. Primary container holding the Scott Air Force Base artifact. Reports are located on the shelf above the desk.

Laboratory Processing and Labeling

The artifact has not been cleaned. An acidic paper label containing the site number, artifact number, provenience, project name, date of excavation, excavator, and description is wrapped around the artifact.

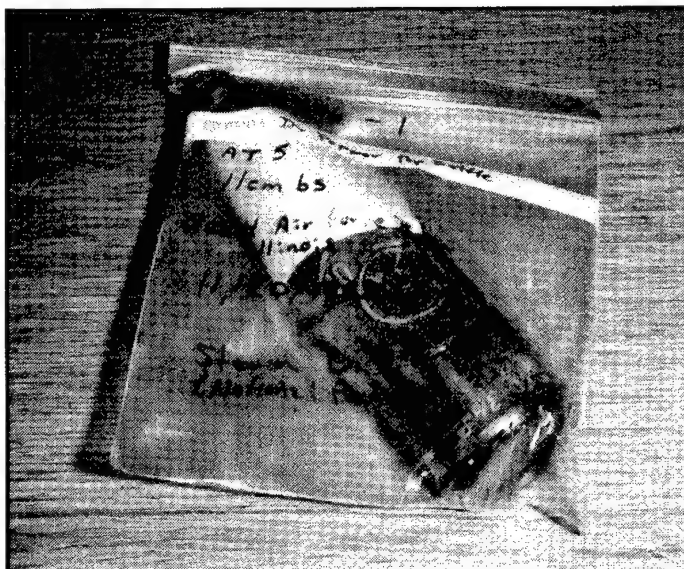


Figure 49. View of the secondary container that holds the Scott Air Force Base historic artifact. The bag is labeled, and an acidic paper label is wrapped around the bottle.

Human Skeletal Remains

This collection contains no human skeletal remains.

Records Storage

Associated documentation from the Scott Air Force Base collection comprises 0.75 linear feet. Administrative records, background records, report records, and maps are stored in a letter-sized, metal, five-drawer file cabinet (Figure 50). Drawers are labeled with adhesive, acidic paper labels.

Paper records

Administrative records, background reports, and report records concerning cultural and natural

resources are stored in 11 non-archival acidic file folders. Folders are labeled with typed, adhesive labels and are arranged according to an internal filing system. A copy of the Archaeological Assessment Report for Scott Air Force Base is kept at Air Mobility Command Headquarters, which is located elsewhere on the base. Paper records have minor tears and contain contaminants such as staples and paper clips.

Photographic Records

There are no photographic records in this collection.

Audio-visual Records

There are no audio-visual records in this collection.

Maps and/or Oversized Documentation

Maps associated with Scott Air Force Base collections are folded and stored in a manila folder in the metal file cabinet that contains the paper documentation.

Machine Readable Records

Reports, agreements, and assessments have been copied on computer disk, but they are being stored on-site in Building 530.

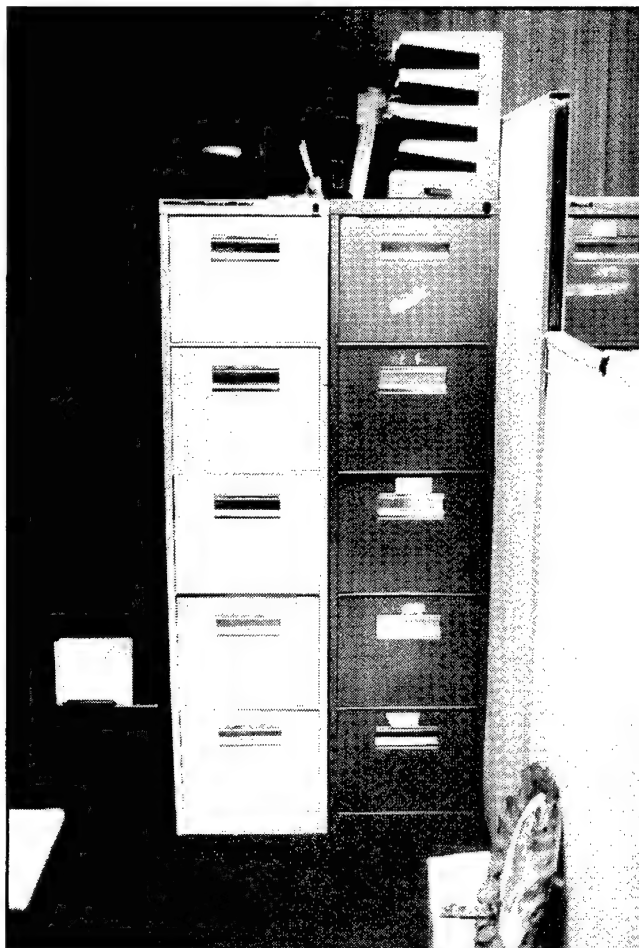


Figure 50. Metal file cabinet where associated documentation is stored.

Collections Management Standards

Registration Procedures

Accession Files

No accession files have been generated, because these files are currently classified as operational files.

Location Identification

No system to identify the physical location of artifacts has been established.

Cross-indexed Files

No cross-indexed file system exists for archaeological collections at Scott Air Force Base.

Published Guide to Collections

The sole artifact was mentioned in the National Park Service 1992 publication, *Archeological Assessment of Scott Air Force Base, St. Clair County, Illinois*.

Site-Record Administration

A site-records administration system does not exist at this base.

Computerized Data-Base Management

No data-base management system for archaeological collections is maintained at Scott Air Force Base.

*Written Policies and Procedures**Minimum Standards for Acceptance*

Scott Air Force Base does not accept collections for curation, therefore, no minimum standards for acceptance have been established.

Curation Policy

The National Park Service's standards for the curation of artifacts are followed.

Records-Management Policy

Scott Air Force Base follows the Air Force regulations governing records numbering, management, and retention.

Field Curation Guidelines

No guidelines have been implemented.

Loan Procedures

There is no written policy regarding loaned material.

Deaccessioning Policy

No policy has been established, and to date, no material has been deaccessioned.

Inventory Policy

No policy has been written and implemented.

Latest Collection Inventory

The collection consists of a single artifact.

Curation Personnel

Scott Air Force Base does not employ a full-time curator. Bill Calvert, the Cultural and Natural Resources manager, ensures that the collection stays on base, but he performs no curation duties.

Curation Financing

There is no funding specifically allotted to the curation of archaeological artifacts at Scott Air Force Base.

Access to Collections

Supervised access to the collection is controlled by Mr. Calvert and is granted to any legitimate researcher.

Comments

1. Air Mobility Command does not intend to maintain this collection at Scott Air Force Base. It will be curated at an appropriate central repository in Illinois.
2. No human remains from archaeological work conducted on Scott Air Force Base property were located in this collection.

Recommendations

1. Move the Scott Air Force Base collection to the Illinois State Museum, Research and Collections Center for proper long-term curation.
2. Clean the artifact, and then label it directly with indelible ink to prevent information loss if the artifact is separated from provenience data.
3. Place the artifact in a four-mil, zip-lock, polyethylene plastic bag and label with indelible ink. A label for the secondary container should be made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper) labeled in indelible ink and inserted into the secondary container. The plastic bag should then be placed in an acid-free cardboard box and labeled with adhesive polyethylene plastic label holder, with an acid-free paper insert.
4. Remove all contaminants (e.g., staples and paper clips) from all documents.

5. Copy all paper records on acid-free paper and place in acid-free folders labeled in indelible ink. Place all folders in acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
6. Arrange associated documentation according to modern archival procedures and create a finding aid for the documentation collection.
7. Make a duplicate copy of all associated documentation on either acid-free paper or microformat, and store in a separate, fire-safe, secure location.

COLLECTIONS AT THE ILLINOIS STATE MUSEUM, RESEARCH AND COLLECTIONS CENTER, SPRINGFIELD

Although the Illinois State Museum does not currently house any collections from Air Mobility Command installations, it is included in this report because it is the repository recommended to curate the Scott Air Force Base collection. For a more detailed discussion, see the 1991 publication *Saving the Past From the Future*, by Michael K. Trimble and Thomas B. Meyers (U.S. Army Corps of Engineers, St. Louis District). Information that follows is a brief synopsis of that report.

DATE OF VISIT: July 19, 1988

PERSON CONTACTED: Terry Martin, Curator

Repository

The Research and Collections Center of the Illinois State Museum is the new central repository for archaeological collections. Situated in south Springfield, the Center is composed of a 20,000-ft² archaeological collections repository surrounded by an 80,000-ft² research laboratory. Taken as a whole, this state-of-the-art facility is the finest archaeological curation center in the Midwest, and certainly one of the most impressive in the United States.

Structural Adequacy

The physical condition of the building is excellent, and it meets or exceeds most of the criteria listed in 36 CFR Part 79 for the permanent curation of archaeological materials and associated documentation.

Environment

The environment in the facility is monitored regularly and has several control measures. The building is heated and air conditioned, and it has humidity control.

Pest Management

The Research and Collections Center is maintained regularly by a professional company to prevent pest infestation. Curatorial personnel monitor the collections for signs of pest problems. No signs of pest infestation were noted by the assessment team during the evaluation.

Security

The collections repository is locked, physically segregated from the research laboratories, and can only be accessed by the curation staff. In addition, a 24-hour security force is employed.

Artifact Storage

All artifacts have been properly cleaned, sorted and labeled. Each artifact is labeled directly and then placed in plastic, zip-lock bags. Bags are then placed in acid-free boxes and stored on baked-enamel metal shelving units.

Records Storage

Records management has received a high priority at the Research and Collections Center. All original records are housed in a records room at the Illinois State Museum in downtown Springfield. A copy of each record group is also kept at the Center. The records storage room at the Center has environmental controls—heating and air conditioning—however, there are no humidity controls in this area. Only records management personnel and those accompanied by them have access to the records storage area.

Collections Management Standards

Registration Procedures

Accession Files

Accession records are created and maintained.

Published Guide to Collections

A guide to collections held by the Center has been published.

Site-Record Administration

Smithsonian Institution's River Basin Survey trinomial site numbers are used.

Computerized Data Base Management

Illinois State Museum uses a data base to track and identify their collections.

Written Policies and Procedures

Minimum Standards for Acceptance

Illinois State Museum has an internal policy on the minimum standards for the acceptance of collections.

Records-Management Policy

Illinois State Museum and the Center has developed a policy for records management.

Field-Curation Guidelines

Written field-curation guidelines have been established by Illinois State Museum.

Deaccessioning Policy

Illinois State Museum has a written deaccessioning policy.

Inventory Policy

Illinois State Museum has a written inventory policy.

Curation Personnel

At the time of the assessment (1988), there were four full-time staff positions devoted to curation and records management. The staff was a well-trained and highly motivated team who had a demonstrated performance record. Interns and volunteers were also employed.

Curation Financing

Most support for curatorial activities is provided by the State of Illinois. Other agencies depositing collections pay a one-time, per-box fee.

Access to Collections

Archaeological collections are open to the research staff of the museum and to qualified researchers. Access is controlled by curation personnel.

Future Plans

At the time of the assessment (1988), the Illinois State Museum was in the process of moving into the new curation facility. All materials were being transferred to acid-free boxes and computerized access was also being improved.

Comments

1. The Research and Collections Center is structurally sound.
2. Environmental control and monitoring devices are present in the Research and Collections Center.
3. An integrated pest management system is in place.
4. The security measures in place are consistent with the standards listed in 36 CFR Part 79.
5. Artifacts are properly labeled and then placed in acid-free secondary and primary containers.
6. Registration procedures are in place.
7. Written policies and procedures are in place.
8. Safety copies of associated documentation are created and stored off-site.
9. The Research and Collections Center employs a full-time, professional curation staff that is dedicated to the safeguarding and care of the materials curated at their facility.

Recommendations

1. Move the Scott Air Force Base collection to the Illinois State Museum Research and Collections center for proper long-term curation.
2. Develop a memorandum of understanding with the Illinois State Museum for curatorial services (see Appendix VIII).

TRAVIS AIR FORCE BASE, FAIRFIELD, CALIFORNIA

COLLECTION SUMMARY

(1) Volume of Artifact Collections: Approximately 8 ft³

On Base: None

Off Base: Approximately 8 ft³

Compliance Status: All artifact collections require at least partial rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: Approximately 1.5 linear ft

On Base: None

Off Base: 1.5 linear ft

Compliance Status: All collections of associated documentation and reports require complete rehabilitation to comply with existing Federal guidelines and standards for archival preservation.

(3) Human Skeletal Remains: Travis Air Force Base collections contain no known human skeletal remains.

(4) Status of Curation Funding: Initial funding for curation is included in contracts as a one-time-per-box, line-item cost. This initial amount, however, is insufficient for curating collections in perpetuity. Additional funds for this purpose are available as an operations and support (O & S) environmental compliance expense.

(5) Status of Installation Repository: Travis Air Force Base has no dedicated repository for archaeological collections. Air Mobility Command plans to place all Travis Air Force Base collections in a central repository in California.

INTRODUCTION

Travis Air Force Base is located in the city of Fairfield, California, approximately 40 miles northeast of San Francisco. Historical-properties responsibilities at Travis Air Force Base are coordinated by a Manager of Cultural and Natural Resources in the Environmental Management Office. No archaeological materials currently are being curated on base, although the manager does keep copies of the reports. Furthermore, no designated space for the curation of archaeological materials or associated documentation exists on the base.

Archaeological collections recovered from Travis Air Force Base are stored in the offices of a contractor—Archaeological Resource Services—located in Petaluma, California, and in the collections of Sonoma State University at Rohnert Park, California. Artifacts recovered from the base include two exclusively prehistoric collections that are comprised primarily of lithic material and a few pieces of groundstone. A program for the permanent curation of these materials, which are under the care of Travis Air Force Base, is nonexistent.

COLLECTIONS AT ARCHAEOLOGICAL RESOURCE SERVICES, PETALUMA, CALIFORNIA

DATE OF VISIT: September 14, 1993

PERSON CONTACTED: Bill Roop and Kathy Flynn

Approximately one cubic foot (1 ft³) of artifacts, which consists exclusively of prehistoric lithic material, and 1.5 linear ft of associated documentation from Travis Air Force Base property is being curated temporarily at Archaeological Resource Services.

Repository

Archaeological Resource Services (ARS) is located within an industrial park area in Petaluma, California (Figure 51). The ARS office, which consists of a ground floor and a mezzanine level built for additional storage space, encompasses approximately 2,000-ft² (Figure 52). Offices and records storage occupy the first floor of the building, and most artifact collections are stored on the mezzanine level. Additionally, an artifact holding, washing and processing area, along with a receiving dock, a library, an equipment storage room, and a restroom occupy areas within the building. Although artifact storage at this office is temporary, ARS has reached 80% capacity in their collections storage area.

Structural Adequacy

The ARS office is in a single-story, concrete and steel building, which was constructed in the early 1980s, that is divided into office space for several companies. Exterior walls are concrete and the

ceiling is constructed of two-by-eight-inch joists covered with plywood decking. The roof, which has never been replaced, is constructed of tarpaper and asphalt. Within the building, offices are divided into separate areas using wood-framed, gypsum board and plaster walls.

The mezzanine level occupies the south and west half of the office and has a plywood floor supported by two-by-six-inch lumber surrounded by a railing of two-by-four-inch studs (see Figure 52). Approximately 700 ft² of additional storage space is provided by this mezzanine, and at the time of visit, it was filled to 80% capacity. A homemade, plastic garbage bag “catcher” built on the mezzanine level collects water that comes through the roof.

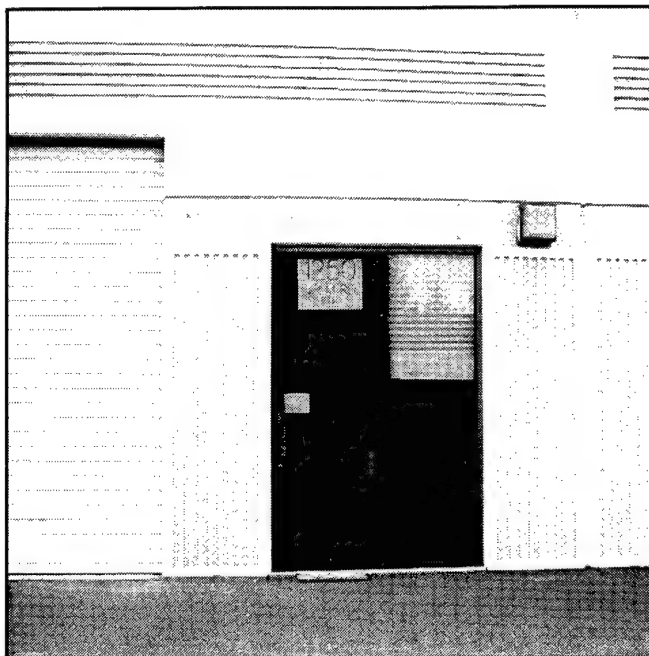


Figure 51. Front door to the Archaeological Research Services offices.

On the ground level of the north side of the office three unshaded, plate-glass windows surround the exterior door. In addition, there are four doors in the ARS office—two hollow, wood-panel interior doors, one leading to the restroom and the other leading to an office area, and two exterior doors on the north side of the building, a single, unshaded glass, and a metal overhead loading door.



Figure 52. View of the mezzanine level collections storage area.

Environment

Temperature is partially controlled by one forced-air heating unit located in the southwest corner of the mezzanine (Figure 53). Additionally, box fans are used to circulate air during the warmer months. No humidity control or monitoring devices are present within the repository. Similarly, there is no temperature-monitoring device or dust filtration system. Lighting in the repository is provided by unprotected, fluorescent lighting. Curatorial staff provide maintenance on an as-needed basis.

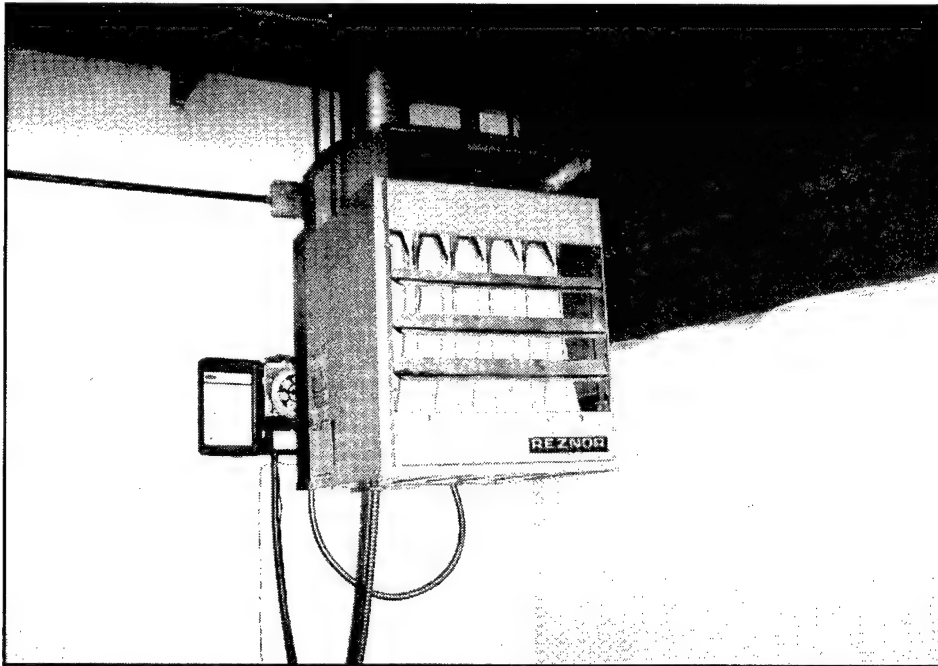


Figure 53. Heating unit in a corner of the mezzanine level at ARS.

Pest Management

No regular pest monitoring takes place, and no pest control measures are taken for the interior of the building; however, the exterior of the entire building is sprayed on a monthly basis by a professional pest management company. Additionally, curatorial staff use mouse bait as a monitoring device on an as-needed basis. No signs of insects or rodents were noted by the assessment team at the time of inspection.

Security

Security consists of an intrusion alarm on the exterior of the entire building that is wired directly to the police department. Additionally, key locks are located on the front entrance door and the loading dock door of the ARS office. All staff members have access to the offices, and collections. Windows cannot be opened. No evidence of unauthorized entry was noted by the assessment team during the evaluation.

Fire Detection/Suppression Systems

No fire detection system exists within the ARS office. Four (4) Halon fire extinguishers located throughout the office constitute the only method of fire suppression. Inspection of the fire extinguishers occurs every six months.

Artifact Storage

Storage Units

The Travis Air Force Base collection is stored on an uncoated wood shelving unit that is constructed of two-by-four-inch lumber and particle board. Several of these units have been placed together to make a closet in the southwest corner of the office (Figure 54), into which the single box of Travis Air Force Base artifacts is stored.

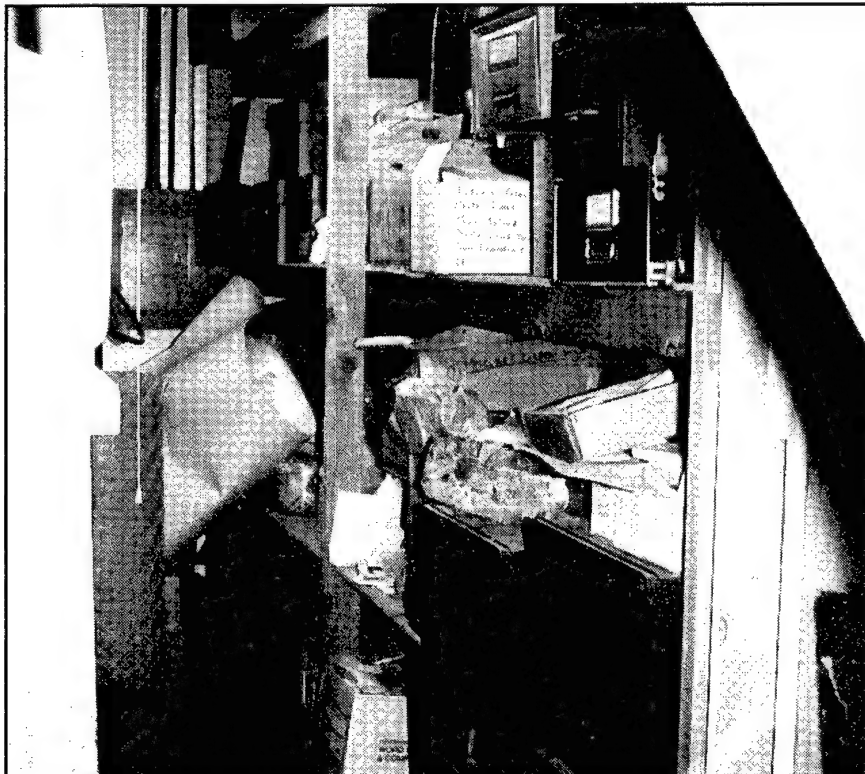


Figure 54. View of the temporary closet where the Travis Air Force Base collection is housed.

Primary Containers

The primary container is a standard, one cubic foot (1 ft³), acidic cardboard box that is 11.5 in long, 11 in wide, and 9.5 in high. The box frame is folded and glued and has a telescoping lid of similar construction. The box, which is covered with dust and dirt, is labeled in marker directly on the exterior. Label information consists of project name, site number, and box number.

Secondary Containers

All artifacts in the Travis Air Force Base collection are nested within layers of newspaper (Figure 55). No other secondary containers are in use. An artifact catalog on acidic paper stock is enclosed in the primary container with the artifacts.

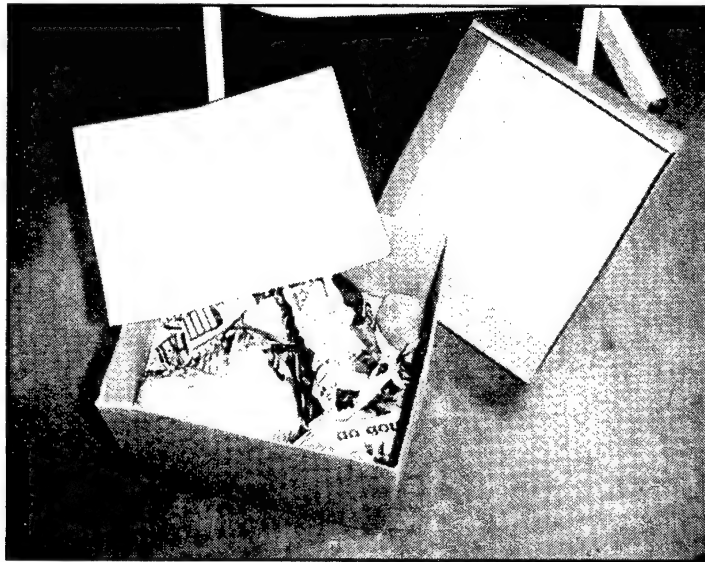


Figure 55. Travis Air Force Base collection and catalog.

Laboratory Processing and Labeling

All artifacts have been cleaned and labeled. Each artifact is labeled directly in ink on correction fluid. Label information on the artifacts is consistent.

Human Skeletal Remains

No human skeletal remains were recovered by ARS during their work on Travis Air Force Base.

Records Storage

Associated documentation from the Travis Air Force Base collection housed at Archaeological Resource Services comprise 1.5 linear ft. Draft reports, administrative files, background material, drawings and maps, and original field records and catalogs are stored in an acidic business archives box stored on the floor at ARS.

Paper Records

The acidic business archives box that holds the paper records—correspondence, progress reports, maps and drawings, draft reports, background material, administrative files, and original field

records and catalogs—is labeled directly with marker. Label information consists of the installation name and a general description of the contents. Most of the Travis Air Force Base documentation is stored in non-archival manila folders or loose in the box. The collection is not arranged in any manner.

Folders are labeled directly in pen, but label information is inconsistent. Neither the folders nor the paper documents are on acid-free stock.

Maps and/Oversized Documentation

Maps and drawings associated with the Travis Air Force Base collection are folded and stored in manila folders in the box with the rest of the paper records.

Reports

The final report documenting the ARS archaeological investigation on Travis Air Force Base is stored in the box with the rest of the records from the collection. It is not on acid-free paper and is bound with a non-archival, plastic-spiral binding.

Audio-Visual Records

No audio-visual records were generated from the ARS work on Travis Air Force Base.

Machine-Readable Records

The only records maintained in a machine-readable format is the report, which is kept on computer disks and housed in the ARS office.

Collections Management Standards

Registration Procedures

Accession Files

A catalog and inventory is made of each collection that is brought into ARS; however, no accessioning system is being maintained.

Location Identification

A listing of collections is available, and the material is stored by county and project number.

Cross-indexed Files

No cross-indexed file system exists at this time, but one currently is being developed.

Published Guide to Collections

No published guide to the collection exists.

Site-Record Administration

When available, the Smithsonian Institution's River Basin Survey trinomial site-numbering system is followed.

Computerized Data-Base Management

An in-house system on microsoft access and D-base IV is used by the staff.

*Written Policies and Procedures**Minimum Standards for Acceptance*

ARS does not accept outside collections for curation; therefore, there are no minimum standards for acceptance.

Curation Policy

No written curation policy exists.

Records-Management Policy

No written records-management policy is in effect.

Field-Curation Guidelines

ARS does not accept outside collections for curation; therefore, no written field-curation guidelines have been established.

Loan Procedures

Material may be loaned after each individual case is reviewed by the staff; however, there is no written policy regarding loaned material.

Deaccessioning Policy

No deaccessioning policy is in effect, and to date, no material has been deaccessioned.

Inventory Policy

Each collection is inventoried when it is processed, but no written inventory policy exists at this facility.

Latest Collection Inventory

Not applicable.

Curation Personnel

Archaeological Resource Services does not employ a full-time curator. If curation is to be provided, it is written into each individual contract. Staff members working on each contract are responsible for the level of curation dictated in the contract.

Curation Financing

Financing for the curation of artifacts is written into each contract.

Access to Collections

Access to the collection is open to staff members on an as-needed basis. No formal access policy has been established; however, researchers may request access in writing and each case is reviewed by the staff.

Future Plans

Future plans include (1) installing additional shelves for artifact storage in the mezzanine and (2) implementing a bar-code system for artifact boxes.

Comments

1. No known human remains from archaeological work conducted on Travis Air Force Base property are stored at this facility.
2. ARS never intended to maintain this collection, so a full 36 CFR Part 79 evaluation was not conducted at this facility.

Recommendations

1. Move the Travis Air Force Base collection to Sonoma State University in Rohnert Park for temporary storage until a proper curation facility can be identified.
2. Replace all secondary artifact containers with four-mil, zip-lock polyethylene plastic bags and label with indelible ink. Additionally, interior labels made from spun-bonded, polyethylene paper (e.g., Nalgene polypaper) should be labeled in indelible ink and inserted into the polyethylene plastic bags.

3. Replace all acidic cardboard boxes with acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
4. Remove all contaminants (e.g., staples and paper clips) from the documents.
5. Copy all paper records to acid-free paper and place in acid-free folders labeled in indelible ink. Place all folders in acid-free cardboard boxes. Apply adhesive polyethylene plastic label holders, with acid-free paper inserts, to the boxes.
6. Machine-readable records should be stored in a stable environment which has humidity and temperature monitoring and control devices.
7. Flatten oversized material and place in flat map storage cases for long-term curation.
8. Arrange associated documentation according to modern archival procedures and create a finding aid for the documentation collection.
9. Make a duplicate copy of all associated documentation, either on acid-free paper or on microfilm, and store them in a separate, fire-safe, secure location. Also make a duplicate copy of the machine-readable records and place them in a separate location.

**COLLECTIONS AT SONOMA STATE UNIVERSITY,
ANTHROPOLOGICAL STUDIES CENTER,
CULTURAL RESOURCES FACILITY, ROHNERT PARK, CALIFORNIA**

DATE OF VISIT: 15 September 1993

PERSONS CONTACTED: James P. Quinn

Approximately seven cubic feet (7 ft³) of prehistoric artifacts, primarily lithic material and a few pieces of groundstone, and less than one (1) linear foot of associated documentation from Travis Air Force Base is being curated at the Anthropological Studies Center at Sonoma State University.

Repository

The Anthropological Studies Center—Building No. 29—is a 16,000 ft², one-story, steel-frame and metal-siding building located on the Sonoma State University campus in Rohnert Park, California (Figure 56). This collections storage facility contains not only collections storage areas but also offices, an equipment storage area, an artifact washing area, a mezzanine storage area, and a restroom. Artifact processing takes place in a fenced area at the front the building (see Figure 56).

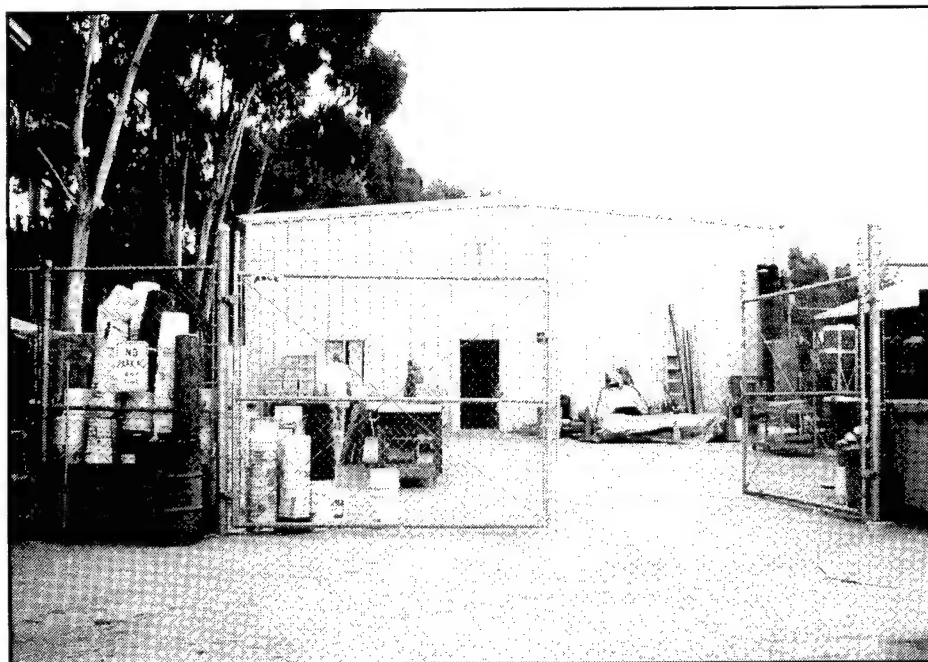


Figure 56. Exterior view of the Anthropological Studies Center Collection Facility.

Structural Adequacy

Building No. 29, which was built approximately 12 years ago, has a concrete foundation, metal exterior walls, metal interior walls coated with insulation, and a metal roof. A wood mezzanine level has been built along the northeast and south sides of the building.

One window—three feet wide by four feet high—is located on the southwest wall in Jim Quinn's office and is partially shaded by a curtain. Three interior, single wood-panel doors are located in the building—two open to offices and one opens to the restroom. One exterior, metal-panel door on the southwest wall opens to the enclosed front yard.

Environment

Temperature in the building is partially maintained by one gas heating unit that is located near the ceiling (Figure 57). Humidity, however, is neither controlled nor monitored. Additionally, no dust filters exist on the heating unit. Lighting for the building and collections storage area consists of unprotected fluorescent bulbs. Maintenance of the building is performed regularly by the staff.

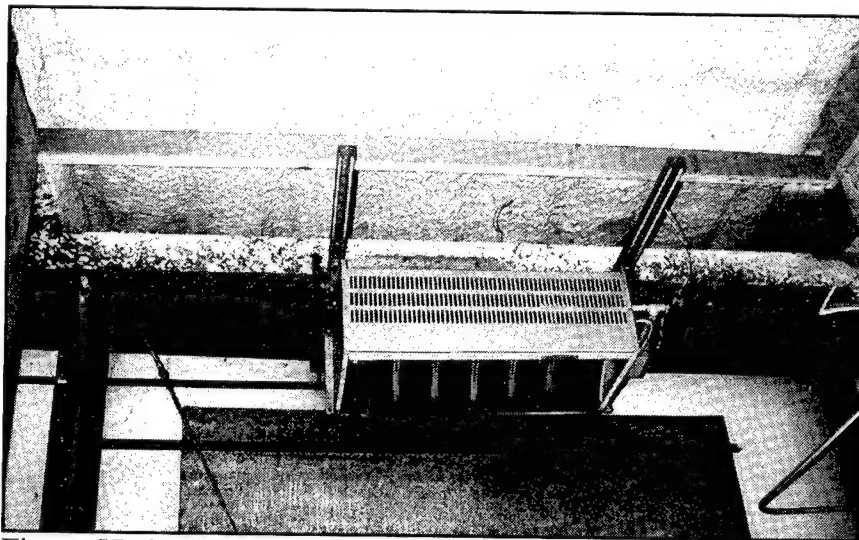


Figure 57. Heating unit in the collections storage area.

Pest Management

No integrated pest management system is in effect for the building or collections storage area. Mouse traps and rat poison are used by the staff as precautions against rodents; however, no monitoring or control of insects is performed. No signs of infestation by rodents or insects were noted by the assessment team; however, staff members have seen field mice in the building.

Security

Security for the building consists of key locks on the exterior door and a window lock (Figure 58). A limited number of keys are available to the staff. Additionally, an eight-foot padlocked, chain-link, barbed-wire fence surrounds the entire building. No evidence of unauthorized entry was noted by the assessment team.

Fire Detection/Suppression Systems

No fire detection devices are present in the building. Several fire extinguishers, which are located at various points throughout the building and are checked and maintained by Sonoma State University personnel, are the only means of fire suppression.

Artifact Storage

Storage Units

Collections are stored on unlabeled, adjustable metal shelving units with a baked enamel finish (Figure 59). The lower level artifact storage area, which houses the Travis Air Force Base collection, contains seven rows of shelves, each row comprised of six shelving units bolted together. Each shelving unit is 3.3 ft long, 1.5 ft wide, and 8 ft high.

Primary Containers

Primary containers consist of acidic cardboard boxes that are 15 in long, 12 in wide, and 10 in high. Box frames are folded and stapled with telescoping lids of similar construction. Box labels are made of acidic paper, which have been placed in plastic packing list holders and affixed with glue to each box. Label information includes accession number, project number (assigned by the contractor), site number, and catalog numbers. One of the seven boxes housing Travis Air Force Base material has no label information at all. All of the boxes are dusty, and some have obviously suffered from water and compression damage (Figure 60).

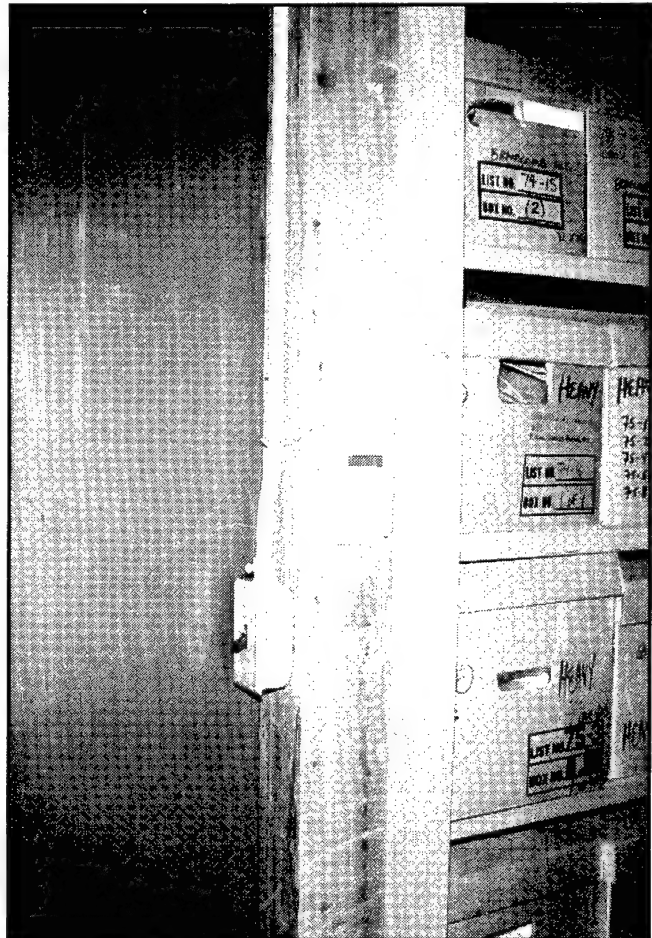


Figure 58. Security system in the collections storage area.

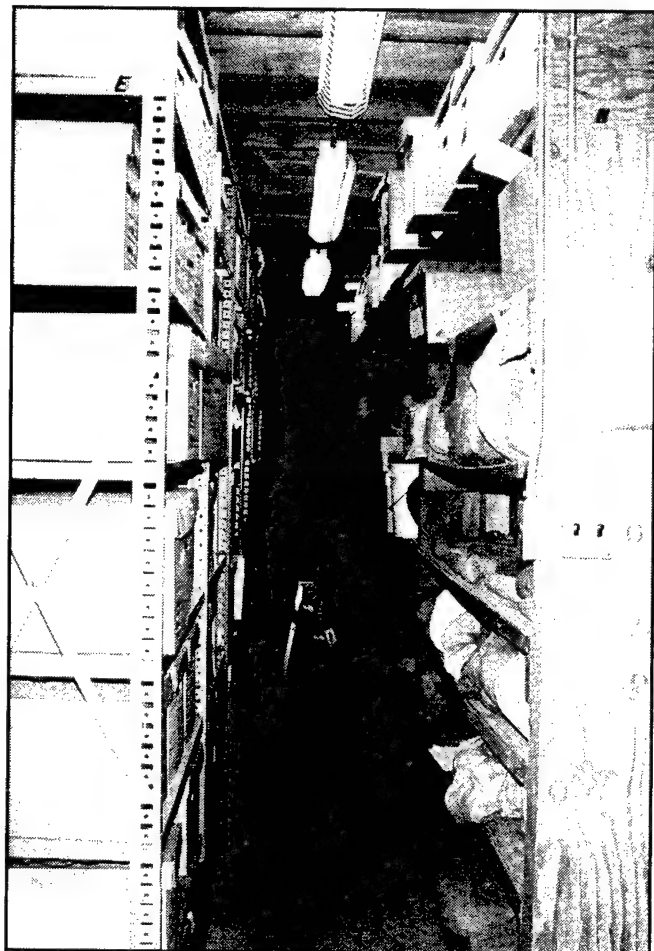


Figure 59. View of the collections storage area.

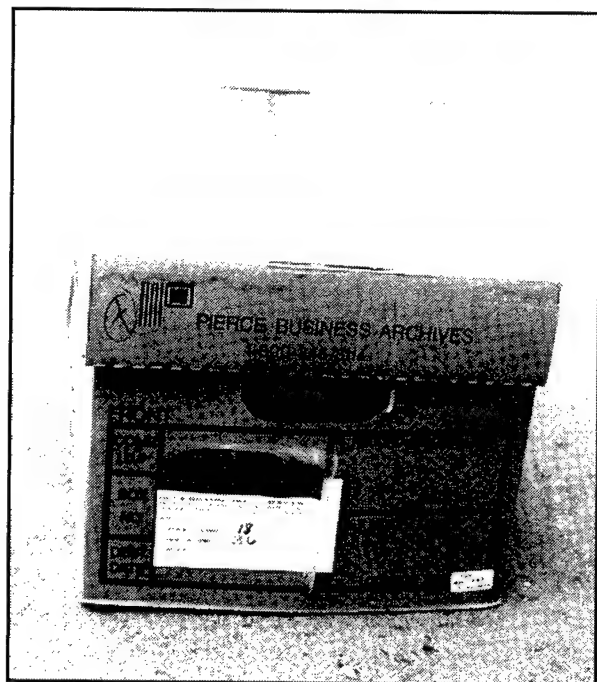


Figure 60. Primary container showing severe compression damage.

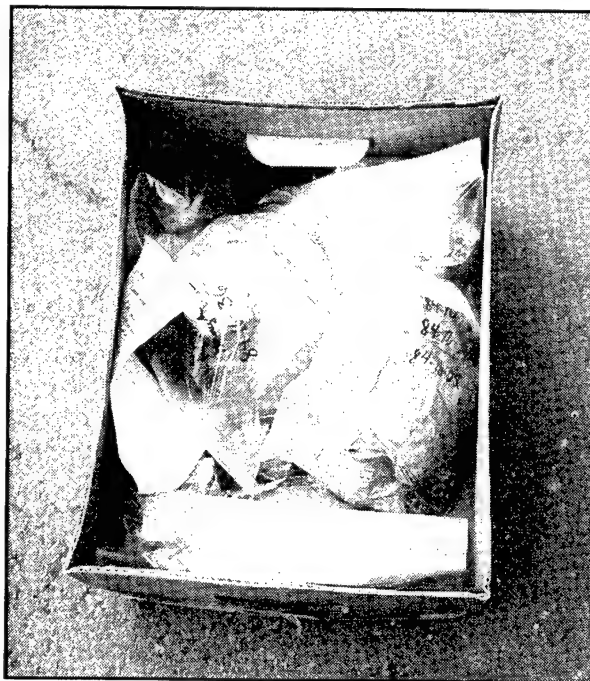


Figure 61. View of nested newspapers inside secondary container.

Secondary Containers

Artifacts in the Travis Air Force Base collection are not consistently packaged. Some of the materials have been placed in two-mil, plastic, zip-lock bags, which were labeled directly in marker. Information on the bags has smeared, however, and is virtually illegible in many cases. Other artifacts are nested loose in newspaper that has been placed in the primary containers (Figure 61).

Laboratory Processing and Labeling

All artifacts in the Travis Air Force Base collection are cleaned and sorted by material class. Approximately 95% of the artifacts have been labeled directly in indelible ink on a correction fluid background and sealed with clear fingernail polish.

Human Skeletal Remains

No human skeletal remains from Travis Air Force Base are being curated by Sonoma State University.

Records Storage

Associated documentation from the Travis Air Force Base collection housed at the Anthropological Studies Center at Sonoma State University consists of a three-page, stapled, computer-generated inventory that is kept in a box of artifacts. No photographic records, maps, reports, audio-visual records, or machine-readable records are included in this collection.

Collections Management Standards

Registration Procedures

Accession Files

All materials are accessioned upon receipt.

Location Identification

Location information is identified in the accession file.

Cross-indexed Files

Collections are cross-indexed by accession number, site number, project name, and report number.

Published Guide to Collections

No published guide to the collections housed at the Anthropological Studies Center at Sonoma State University exists.

Site-Record Administration

The Smithsonian Institution's River Basin Survey trinomial site-numbering system is in use at Sonoma State University.

Computerized Data-Base Management

A catalog system on several different types of software—Reflex, Paradox, and Microsoft Word—is being maintained.

Written Policies and Procedures

Minimum Standards for Acceptance

Written minimum standards for acceptance of archaeological collections is included in the curation agreement provided for researchers depositing collections.

Curation Policy

No comprehensive plan exists; however, the staff follows a plan that addresses some curation contingencies (e.g., processing materials).

Records-Management Policy

No written records-management policy exists.

Field-Curation Guidelines

Sonoma State University has no written field-curation guidelines.

Loan Procedures

No written policy exists; however, recipients of loaned material must complete a loan form.

Deaccessioning Policy

Sonoma State University has no written deaccessioning policy.

Inventory Policy

A written inventory policy for use by the staff is maintained.

Last Collection Inventory

Inventorying the collection is an on-going process and is updated every two to three years.

Curation Personnel

The Anthropological Studies Center does not have a full time curator. Jim Quinn, the collections coordinator, devotes 20 hours a week to curation activities. He is assisted in these duties by three volunteers and student interns.

Curation Financing

The Anthropological Studies Center charges a curation fee of \$500 per box, which is inadequate for the perpetual curation of the collections. Approximately \$50,000 per year is needed to meet current curatorial responsibilities.

Access to Collections

Access to the collection is controlled by curatorial personnel. The facility is open to legitimate researchers by appointment only.

Future Plans

Future plans include the renovation of the present building and the construction of a new facility, thus tripling the storage space of the facility. According to the staff there are also plans to upgrade the security measures of the repository.

Comments

1. Sufficient temperature and humidity control are lacking in the repository.
2. An integrated pest management program is not in effect in the building or collections storage area.
3. The barbed-wire fence provides some protection for the building; however, an intrusion alarm is not present.
4. A fire suppression system adequate to protect archaeological collections is nonexistent. Additionally, a fire detection system is not installed.
5. Artifacts are stored in acidic boxes, some of which exhibit damage. Nor are they packaged in proper secondary containers with consistent labels.
6. Sonoma State University does not have a full-time curator of collections.
7. No human remains from archaeological work conducted on Travis Air Force Base property are being curated at Sonoma State University.
8. Registration procedures are in place.
9. Approximately 50% of the necessary written policies and procedures are in place.
10. Lighting is not filtered with ultraviolet sleeves.

Recommendations

1. Keep the Travis Air Force Base collection at this repository until a proper long-term curation facility can be identified.
2. Install a proper environmental control system that includes temperature and humidity control and monitoring.
3. Implement an integrated pest management system that includes control and monitoring.
4. Upgrade the security system to include an intrusion alarm, both outside and inside the building.
5. Install a proper fire suppression/detection system that includes smoke detectors, alarms (wired to the fire department), and a sprinkler system.
6. Label all artifacts directly with indelible ink.
7. Place all artifacts in four-mil, zip-lock bags and label with indelible ink. Additionally, tags made from spun-bonded paper (e.g., Nalgene) should be labeled with indelible ink and inserted into the bags.
8. Place proper secondary containers in appropriate acid-free primary containers.
9. Label primary containers with proper labels and ensure that label information is consistent.
10. Remove the collection catalog from the box and copy it onto acid-free paper. Place the catalog and the copy in secure, separate locations.
11. Place ultraviolet sleeves on lighting units in collection and records storage areas.
12. Develop and implement (a) a written curation policy, (b) a written records-management policy, (c) field-curation guidelines, (d) loan procedures, and (e) a written deaccessioning policy.

FINDINGS SUMMARY FOR AIR MOBILITY COMMAND INSTALLATIONS

Nine (9) individual storage areas house artifact collections from four (4) Air Mobility Command installations (Table 7). Additionally, one (1) facility, which is not currently curating AMC collections, was inspected for the purpose of recommending a proper curation facility for housing the Scott Air Force Base collection. Four (4) of these inspected facilities are located on installation properties; the remaining six (6) facilities are located off base in museums and university repositories or with private contractors. Each of these facilities was visited by the assessment team. Overall, nine (9) Air Mobility Command collections and 65 associated reports were located. A building evaluation, survey questionnaire, and collections and documentation evaluation were completed for each repository.

Table 7.
Summary of Collections by Location

Location	Volume of Artifacts	Length of Documentation
Charleston AFB	none	0.5
South Carolina Institute	2.3	6.25
Dover AFB	>1	0.25
Maar Associates	6.5	0.5
Center for Archaeological Research	1.0	0.5
Island Field Museum	>1	none
Scott AFB	>1	0.75
Illinois State Museum	none	none
Travis AFB	none	none
Archaeological Resource Services	1.0	1.5
Sonoma State University	<u>7.0</u>	<u>0.1</u>
Total	18.8	10.35

At base, the following can be concluded.

- Only three (3) of the 10 repositories housing AMC collections approach the standards established in 36 CFR Part 79.
- To achieve proper care, collections from each installation should be stored in a central repository located within the same state as the installation.
- All collections require some type of rehabilitation, and 25% of all of the collections require complete rehabilitation.
- All collections of associated documentation require at least partial rehabilitation, and 75% require complete rehabilitation.
- Management controls—a master collection inventory and data base—for AMC collections do not exist and should be created immediately.

REPOSITORIES

Structures which function as archaeological curation repositories can be divided into four (4) general types or classes—collection facilities, university classrooms or laboratories, museums, and contractors offices. In most cases, institutions use whatever space they can acquire from their governing bodies; they do not have the financial capability to acquire additional space suitable for collections management needs.

Most repositories receive some measure of maintenance, though on an irregular basis. At least 50% (five) of the repositories evaluated during this study received no standard cleaning or maintenance other than that provided by the curatorial staff. In addition, 30% (three) repositories have artifact storage areas that are cluttered with other materials such as excavation equipment, supplies, and furniture.

None of the 10 repositories are in total compliance with the standards mandated by 36 CFR Part 79 for curating archaeological collections (see Table 8). Only 40% (four) are even in partial compliance with the major standards—proper environmental controls, pest management, security, and fire safety—included in 36 CFR Part 79.

A final measure of the care afforded collections can be ascertained by examining the professional staff devoted to collections management. Only 30% (three) of the 10 repositories employ full-time curators for archaeological collections. In no instance should these collections be in private hands. Professional public institutions have the means and mission for long-term care. Leaving any collections in private hands virtually ensures their eventual loss.

Environmental Controls

Environmental monitoring and adequate environmental controls do not exist in 90% (nine) of the repositories (Table 8). Although most of the structures are heated and air conditioned, all of the repositories have experienced temperature and humidity fluctuations outside the acceptable range dictated by the American Association of Museum standards. Such conditions have contributed, and will continue to contribute, to major damage to the collections and associated records.

Table 8.
Presence/Absence of Repository Infrastructure Controls

Location	Environmental Controls	Pest Management	Security	Fire Control
Charleston AFB	No	No	No	Yes
SCIAA	No	Yes	Yes	No
Dover AFB	No	Yes	No	No
Maar Associates	No	No	No	No
UDCAR	No	Yes	Yes	Yes
Island Field	No	Yes	Yes	Yes
Scott AFB	No	No	No	Yes
Illinois State	Yes	Yes	Yes	— ¹
Travis AFB ²	—	—	—	—
ARS, Inc.	No	No	Yes	No
Sonoma State	No	No	No	No

¹ No information available at the time of the assessment.

² No archaeological collections are housed at Travis Air Force Base.

Pest Management

Only 50% (five) of the repositories have a formal pest management program (Table 8)—one that monitors and controls insects and small mammals. Pests present the threat of irrevocable damage to records and therefore is a crucial element in the long-term care of records. These five (5) repositories are sprayed with chemicals on a regular basis. The types of chemicals used, their frequency of use, and the attendant hazard to personnel and collections are beyond the scope of this report but are not recommended and should be investigated.

Security

Although access to collections is usually limited to a select number of employees, only 50% (five) of the repositories meet the minimum Federal standards for security of archaeological collections (Table 8). Minimum standards include intrusion alarms, motion detectors, limited access, absence of windows, and dead-bolt locks on doors.

Fire Safety

Less than one-half (40%) (four) of the repositories contain fire detection devices. Sprinkler systems are present in only 10% (one) of the repositories. All repositories have at least one fire extinguisher in the collections storage area; this is by no means adequate protection.

ARTIFACT COLLECTIONS

None of the artifact collections are properly prepared for long-term curation. Overall, 70% of the primary containers are variable-sized acidic cardboard boxes that frequently are overstacked, overpacked, compressed, and torn. Not all primary containers included adequate label information.

Seventy percent (70%) of the secondary containers observed are acidic paper bags, which are not museum recommended and contribute to artifact degradation. Many are torn. Other types of improper secondary containers observed include plastic bags, small cardboard boxes, plastic vials, newspaper, and zip-lock bags. In some cases, the artifacts were not stored in secondary containers or had been separated from their secondary containers. Numerous artifacts were found loose in the primary container. The wide variety of non-archival containers has led to an inventory-control nightmare, and the continuation of these conditions eventually will contribute to the deterioration of the collections.

According to the data that were generated from each AMC collection (Table 9), lithics, debitage, and fire-cracked rock are the most abundant material classes in the prehistoric collections. Glass, ceramic materials, and metal are the most abundant historic materials.

HUMAN SKELETAL REMAINS

None of the AMC collections identified in this study contained any human skeletal remains.

Table 9.
Percentages of Material Classes in AMC Collections

Material Class ¹	Frequency	Percentage Present
Prehistoric		
Lithic Tools	237	7
Debitage	1,057	34
Ceramics	39	1
Faunal/Shell	10	<1
Botanical	None	N/A ²
Flotation	None	N/A
Groundstone	23	<1
Mica	5	<1
Fire-Cracked Rock	695	22
Soil	61	2
¹⁴ C	None	N/A
Human Skeletal	<u>None</u>	<u>N/A</u>
Subtotal—Prehistoric	2,148	69
Historic		
Ceramic	205	7
Glass	469	15
Metal	193	6
Worked Bone/Ivory/Shell	9	<1
Faunal	1	<1
Brick/Masonry	43	1
Leather	1	<1
Marble	6	<1
Human Skeletal	None	N/A
Other	<u>29</u>	<u><1</u>
Subtotal—Historic	956	31
Total	3,104	100

¹The collection at Archaeological Resource Services is not included in this table. No specific count or frequency was available, but that collection consists of 100% prehistoric lithic material.

²No materials were noted in the Air Mobility Command collections; therefore, percentage present is not applicable (N/A).

RECORDS MANAGEMENT

AMC associated records encompass 10.35 linear ft. Although some attempts at minimal conservation practices had been made at 30% (three) of the repositories evaluated, archival-quality protocols were observed at only 20% (two) of the repositories, neither of which is currently housing AMC associated documentation. Original paper records at 90% (nine) of the repositories had not been duplicated. Paper documents are not housed within acid-free folders, maps are not consistently stored flat in metal cases, and photographic materials have not consistently been isolated and stored in chemically inert sleeves. Systematic inventory of records and photographs exist at only 20% (two) of the repositories, again neither of which currently house AMC associated documentation. It is also important to note that associated documentation housed at installations are currently classified as administrative or operational files; therefore, no attempts have been made to curate this material in perpetuity.

Environmental controls that meet the Federal standards in 36 CFR Part 79 exist at only 10% (one) of the repositories. Records housed in the remaining 90% (nine) repositories are subject to severe temperature and humidity fluctuations. Archive materials readily absorb and release moisture, which leads to expansion and contraction and dimensional changes that accelerate deterioration and promote major visible damage such as cockling paper, flaking ink, warped covers on books, and cracked emulsion on photographic materials.

MANAGEMENT CONTROLS

Basic collections management tools—e.g., accession records, inventories, and written policies and procedures for curation, records management, and loans—exist at only 20% (two) of the facilities, are partially present at 40% (four) of the facilities, and do not exist in any form at 40% (four) of the facilities. Therefore, most of the examined repositories entrusted with the care of these collections have no long-term plan for the management of these resources. This responsibility must be honored by the Federal managers as well and must be corrected immediately. Failure to meet elementary curation needs and responsibilities has led to substandard care for many of the Air Mobility Command collections.

This collections assessment establishes the extent, location, and condition of AMC collections. We recommend that Air Mobility Command take action to address the deficiencies identified in this report. At a minimum, a plan of action for the long-term management of Air Mobility Command collections should implement the following items:

1. Establish a priority for all the collections.
2. Inventory and rehabilitate the collections, both artifact and record collections.
3. Place all collections in facilities that can adequately protect these resources for future use.

Implementation of these minimal tasks will contribute greatly to our understanding of the cultural history of North America.

RECOMMENDATIONS

The following general recommendations are submitted for bringing all Air Mobility Command collections into compliance with the mandates of 36 CFR Part 79, Curation of Federally-owned and Administered Archaeological Collections, and the Native American Graves Protection and Repatriation Act (P.L. 601-101). A comprehensive plan for curation compliance includes the following points.

I. DEVELOP A PLAN OF ACTION

A plan of action minimally must address four points—(1) long-term housing of the collections and records, (2) rehabilitation of the artifact collections, (3) rehabilitation of the associated records, and (4) management of this data.

II. COMPLY WITH NAGPRA

Once the information concerning NAGPRA items (e.g., human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony) was compiled by St. Louis District personnel, it was forwarded to Headquarters U.S. Air Force and the National Park Service. No known NAGPRA items are included in the collections discussed in this report. This action fulfilled the compliance measures dictated by the 16 November 1993 NAGPRA deadline. In addition, because none of these classes of items are owned by AMC installations, further action to comply with the 16 November 1995 NAGPRA deadline is unnecessary.

III. DEVELOP A FORMAL ARCHIVES MANAGEMENT PROGRAM

A plan of action must be developed immediately to establish archives-deficiency priorities within AMC. Following this survey all records must be coalesced and rehabilitated to comply with existing Federal guidelines and standards for modern archival practices. Archives rehabilitation includes eight (8) steps.

1. Develop an archives inventory management program that uses microcomputer technology.
2. Inventory and catalog all associated records to standards consistent with those of a professional museum or archives.
3. Copy all operational files at individual installations, and place them in an appropriate repository.

4. Using an appropriate professional staff, conduct a condition assessment of all records, and institute and carry out a long-term conservation program for appropriate records.
5. Conserve significant records that are currently at risk.
6. Transfer general records into acid-free folders and appropriate archival storage units.
7. Place photographs, negatives, and slides into archival, polypropylene sleeves; acid-free envelopes; and appropriate storage units.
8. Catalog, flatten, and curate large-scale maps in metal map cases.
9. Produce duplicate/back-up copies of associated records that will be stored in a secure, separate location.

Proper management of AMC archaeological archives will provide opportunities for scholars, students, and the public to benefit from the information contained in these records; a major public benefit that currently is not being realized.

IV. INVENTORY AND REHABILITATE EXISTING ARTIFACT COLLECTIONS

A priority based on physical condition must be assigned to AMC collections, a general inventory must be produced, and the collections must be rehabilitated to professional museum standards. Rehabilitation must include the following four stages.

1. Inventory and catalog all artifact collections to a standard consistent with those of a professional museum.
2. Label and package artifacts to one consistent standard, and place them in archivally sound containers.
3. Using an appropriate professional staff, conduct a condition assessment and implement a long-term conservation program for the appropriate materials.
4. Develop a collections manual to aid in the management of archaeological collections.

These steps will result in the stabilization and preservation of existing collections, and will insure management of the collections in the most cost-efficient manner for the Federal taxpayer. Proper management of these collections will insure that scholars, students, and the public have access to, and benefit from, AMC archaeological collections, which presently do not approach their potential for use.

V. COALESCE COLLECTIONS

A plan of action for the long-term care of collections and associated records must be adopted by AMC. In this era of cost-efficiencies, the Technical Center of Expertise for Archaeological Curation and Collections Management (TCX) recommends coalescing collections into one regionally based, Federally owned or leased repository constructed specifically for the curation and long-term management of archaeological collections. Another option, which is not cost efficient, is to place the collections into existing facilities in their state of origin, then spend the requisite funds to upgrade these facilities to meet the Federal curation standards and the regional differences in collections and management needs.

The second option—placing the collections in a facility in the state of origin—is recommended as a temporary solution for the long-term curation needs of AMC collections. As regional repositories become available, AMC collections should be curated in perpetuity at these facilities. The TCX regards all the aforementioned recommendations as minimal tasks that must be addressed in order to bring AMC into compliance with Federal standards on archaeological curation.

APPENDIX I

BIBLIOGRAPHY FOR THIRTEEN AIR MOBILITY COMMAND INSTALLATIONS

CALIFORNIA

March Air Force Base

Drover, Christopher

- 1987 *Environmental Impact Evaluation: An Archaeological Assessment of the Air Force Village West Riverside County, California.*

Information Source: University of California, Riverside

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Drover, Christopher

- 1988 *Environmental Impact Evaluation: An Archaeological Assessment of the Proposed Barton Street Pipeline and Access Road Near Glen Valley, California: An Amendment to the Markham Tark Site Study.*

Information Source: University of California, Riverside

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Drover, Christopher

- 1989 *Environmental Impact Evaluation: An Archaeological Assessment of 1720 P.Z. Tank Site and Associated Pipeline Easement, Riverside County, California.* Prepared for Albert Webb and Associates.

Information Source: University of California, Riverside

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

McCarthy, Daniel

- 1986 *Environmental Impact Evaluation: An Archaeological Assessment of the West March Housing Development, March Air Force Base, Riverside County, California.*

Information Source: University of California, Riverside

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Mikesell, Stephen D., and Stephen R. Wee

- 1993 *Summary Report on Historical Significance and Historic Preservation Management for the March Field Historic District.* JRP Historical Consulting Services.

Information Source: National Park Service, National Archeological Database, 5/3/93
Search

Collection Location: No materials were collected.

Documentation Location: JRP Historical Consulting Services.

Perault, Gordon

- 1985 *Preliminary Historical Inventory: March Air Force Base, California.* Fields and Silverman, Architects.

Information Source: National Park Service, National Archeological Database, 5/3/93
Search

Collection Location: No materials were collected.

Documentation Location: Fields and Silverman, Architects.

Spanne, Laurence W.

- 1986 *Report on a Cultural Resources Survey for Three Proposed Construction Locations on March Air Force Base.* Vandenberg Air Force, Base, California.

Information Source: University of California, Riverside

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Swope, Karen K., and Barry Neidtich

- 1987 *An Archaeological Assessment of 970 +/- Acres of Land Located on March Air Force Base, Riverside County, California.* University of California, Archaeological Research Unit, Riverside.

Information Source: University of California, Riverside

Collection Location: Undetermined

Documentation Location: Undetermined

Tetra Tech

- 1990 (Draft Report) *Cultural Resource Investigations for a Proposed Realignment of Facilities from Los Angeles Air Force Base to March Air Force Base, Riverside County, California.* Prepared for Norton Air Force Base.

Information Source: University of California, Riverside

Collection Location: Undetermined

Documentation Location: Undetermined

Norton Air Force Base

Carmichael, Davis

- 1991 *Documentary Research and Field Reconnaissance Relating to Cultural Resources at Norton Air Force Base, California.* Tetra Tech.

Information Source: National Park Service, National Archeological Database, 5/3/93
Search

Collection Location: Undetermined, but probably no materials collected.

Documentation Location: Undetermined

No Author

- 1988 *Cultural Resource Management Recommendations. Norton Air Force Base, San Bernardino County, California.* National Park Service, Interagency Archeological Services, San Francisco.

Information Source: National Park Service, National Archeological Database, 5/3/93
Search

Collection Location: No materials were collected.

Documentation Location: Undetermined

Schmuecker, Brian L.

- 1991 *Inventory and Evaluation of World War II Structures at Norton Air Force Base in San Bernardino County, California.*

Information Source: National Park Service, National Archeological Database, 5/3/93
Search

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Schwartz, Steven J.

- 1984 *Cultural Resources Survey: Norton Air Force Base Excess Lands.* Report submitted to Norton Air Force Base by the U.S. Army Corps of Engineers.

Information Source: San Bernardino County Museum, California

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Talley, Paige

- 1984 *Van Nuys Air National Guard Relocation Study, Air Force Plant #42, Palmdale Naval Air Station, Point Mugu, Norton Air Force Base.*

Information Source: University of California, Los Angeles

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Tetra Tech

- 1991 *Documentary Research and Field Reconnaissance Relating to Cultural Resources at Norton Air Force Base, California.*

Information Source: San Bernardino County Museum, California

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Travis Air Force Base

Chavez, David

- 1980 *Cultural Resources Evaluation of the North Bay Aqueduct Alignment Alternatives (Routes 1, 4, and 6), Solano County, California.*

Information Source: Northwest Information Center, Rohnert Park, California

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Chavez, David, and Associates

- 1986 Letter report on the Travis Air Force Base SATCOM Project from David Chavez and Associates, Mill Valley, CA to Sandra Guldman of Environmental Science Associates, San Francisco, February 7.

Information Source: Northwest Information Center, Rohnert Park, California

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Flynn, Katherine, and William Roop

- 1984 *Cultural Resources Inventory of the Proposed Travis Air Force Base Medical Facility, Fairfield, Solano County California.* Archaeological Resource Services, Petaluma, California.

Information Source: Northwest Information Center, Rohnert Park, California

Collection Location: Sonoma State University, Rohnert Park, California

Documentation Location: Sonoma State University, Rohnert Park, California

Moeller, Konstance, B. Verhaaren, and D. Walitschek

- 1994 *An Archaeological and Historic Resources Survey and Inventory of Travis Air Force Base, Solano and Contra Costa Counties, California.* Argonne National Laboratory, Argonne, Illinois.

Information Source: Argonne National Laboratory, Argonne, Illinois

Collection Location: Argonne National Laboratory, Argonne, Illinois, until survey is completed.

Documentation Location: Argonne National Laboratory, Argonne, Illinois, until survey is completed.

No Author

- 1989 *Cultural Resource Management Recommendations*. National Park Service, Interagency Archeological Services Branch, San Francisco.

Information Source: National Park Service, National Archeological Database, 5/3/93 Search

Collection Location: Undetermined, but probably no collections were made.

Documentation Location: No documentation was located.

Osborn, Sammie Kenton, and Richard A. Weaver

- 1989 *Travis Air Force Base, Solano County, California Proposed Section 801 Family Housing Cultural Resources Survey and Evaluation*.

Information Source: Northwest Information Center, Rohnert Park, California

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Roop, William, and Katherine Flynn

- 1989 *Archaeological Data Recovery at Ca-Sol-313 within the Proposed Travis Air Force Base Medical Facility, Solano County, California*. Archaeological Resource Services, Petaluma, California.

Information Source: Northwest Information Center, Rohnert Park, California

Collection Location: Sonoma State University, Rohnert Park, California, and Archaeological Resource Services, Petaluma, California

Documentation Location: No documentation was located.

DELAWARE**Dover Air Force Base**

Catts, Wade P., and Todd Sanstrom

- 1993 *Report of the Phase I and II Archaeological Testing of the Lisbon Tract, Dover Air Force Base, Delaware*.

Information Source: University of Delaware, Newark

Collection Location: University of Delaware, Center for Archaeological Research, Newark

Documentation Location: University of Delaware, Center for Archaeological Research, Newark

Dames and Moore

1993 *Draft Phase IA Archeological Assessment, Dover Air Force Base, Dover, Delaware.*

Information Source: Dover Air Force Base

Collection Location: Undetermined

Documentation Location: Undetermined

D'Andrade, James

1975 *Summary of Dover Air Force Base Historical, Cultural, and Archeological Site Preservation Survey.*

Information Source: National Park Service, National Archeological Database, 5/5/93
Search

Collection Location: Island Field Museum, Delaware

Documentation Location: Undetermined

No Author

1984 *Cultural Resource Management Recommendations, Dover Air Force Base, Kent County, Delaware.* National Park Service, MidAtlantic Region, Preservation Planning Division, Office of Cultural Programs.

Information Source: HQ, AMC bibliography

Collection Location: Delaware State Historic Preservation Office, Newark

Documentation Location: Undetermined

Thomas, Ronald A., and Ted M. Payne

1993 *Archaeological Survey and Evaluation at the Dover Air Force Base, Dover, Delaware.*

Information Source: MAAR Associates

Collection Location: MAAR Associates

Documentation Location: MAAR Associates

University of Delaware, Newark

1992 *A Proposal for Phase I and II Archaeological Testing at the Lisburne Site, Dover Air Force Base.*

Information Source: University of Delaware, Center for Archaeological Research,
Newark

Collection Location: No materials were collected.

Documentation Location: University of Delaware, Center for Archaeological Research,
Newark

ILLINOIS

Scott Air Force Base

DeVore, Steven L.

- 1990 *Reconnaissance Survey of Proposed 55-Acre Land Acquisition for Dormitory/Dining Hall Facilities, Scott Air Force Base, St. Clair County, Illinois.* National Park Service, Interagency Archeological Services, Rocky Mountain Regional Office.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

DeVore, Steven L.

- 1992 *Archeological Assessment of Scott Air Force Base, St. Clair County, Illinois.* National Park Service, Interagency Archeological Services, Rocky Mountain Regional Office.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Hoffman, J. J.

- 1986 *Brief Reconnaissance of Scott Air Force Base, St. Clair County, Illinois.*

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Holley, George R., *et al.*

- 1990 *Phase I Cultural Resource Investigations of the Proposed Expansion of Scott Air Force Base, St. Clair County, Illinois.* Southern Illinois University, Edwardsville.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Holley, George R., *et al.*

- 1991 *Phase I Reconnaissance Survey of Proposed Airport Taxiway Linking the Scott Air Force Base Runway and the Planned Commercial Facility.*

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Thomason, Philip

- 1991 *Inventory and Evaluation of Historic Buildings and Structures on Scott Air Force Base, Illinois*. Thomason and Associates.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

INDIANA

Grissom Air Force Base

Cagel, Chantal

- 1993 *Archaeological Reconnaissance Survey of Grissom Air Force Base, Miami and Cass Counties, Indiana*. Earth Technology Corporation.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected. Future collections will be curated at Ball State University.

Documentation Location: Undetermined

MARYLAND

Andrews Air Force Base

Harrel, J. M., and E. S. Montagliani

- 1984 *Historical Archaeological Survey, Andrews Air Force Base*. Unpublished manuscript on file, Historic Sites Division, Maryland National-Capital Park and Planning Commission, Upper Marlsboro, Maryland.

Information Source: Historic Sites Division

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

National Park Service

- 1992 *Cultural Resource Management Recommendations, Andrews Air Force Base, Maryland*. National Park Service, MidAtlantic Region, Preservation Planning Branch, Resource Planning and Preservation Division, Cultural Resource Management.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

National Park Service

- 1993 *Cultural Resource Report and Management Recommendations for Andrews Air Force Base, Prince Georges County, Maryland.* National Park Service, MidAtlantic Region, Preservation Planning Branch, Resource Planning and Preservation Division, Cultural Resource Management.

Information Source: Maryland Historical Trust, Crownsville

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

MONTANA

Malmstrom Air Force Base

Greiser, T. Weber

- 1988 *Cultural Resources Sample Survey Malmstrom Air Force Base Deployment Area, Montana.* Historical Research Associates.

Information Source: Montana State Historic Preservation Office, Helena

Collection Location: No materials were collected.

Documentation Location: Historical Research Associates

Greiser, T. Weber

- 1988 *Cultural Resources Survey of 1,250 Acres in the Vicinity of Malmstrom Air Force Base, Great Falls, Montana.* Historical Research Associates.

Information Source: Montana State Historic Preservation Office, Helena

Collection Location: No materials were collected.

Documentation Location: Historical Research Associates

Greiser, T. Weber

- 1989 *Cultural and Paleontological Resources Survey on and Adjacent to Malmstrom Air Force Base, Great Falls, Montana.* Historical Research Associates.

Information Source: Montana State Historic Preservation Office, Helena

Collection Location: No materials were collected.

Documentation Location: Historical Research Associates

Greiser, T. Weber

- 1989 *Intensive Cultural Resources Survey of Selected Locations Malmstrom Air Force Base Deployment Area, Montana.* Historical Research Associates.

Information Source: Montana State Historic Preservation Office, Helena

Collection Location: No materials were collected.

Documentation Location: Historical Research Associates

Hoffecker, John F.

- 1994 *Prehistoric and Historic Archaeological Resources at Malmstrom Air Force Base.* Argonne National Laboratory, Environmental Assessment Division, Argonne, Illinois.

Information Source: Montana State Historic Preservation Office, Helena

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

NEW JERSEY

McGuire Air Force Base

Berger, Louis, and Associates

- 1985 *Cultural Resource Survey and Evaluation, U.S. Army Training Center and Fort Dix, Volume 1.*

Information Source: HQ AMC bibliography

Comment: Survey was actually conducted on Fort Dix property.

Burrow, Ian

- 1992 *A Cultural Resource Survey for the Fort Dix and McGuire Air Force Base Tertiary Wastewater Treatment Facility, New Hanover Township, Burlington County, New Jersey.* Hunter Research.

Information Source: HQ AMC bibliography

Comment: Survey was actually conducted on Fort Dix property.

Gimigliano, Michael

- 1986 *Stage I Cultural Resources Survey, Fort Dix and McGuire Air Force Base, Wastewater and Sludge Management Facilities Plan.* Elson T. Killam Associates.

Information Source: HQ AMC bibliography

Comment: Survey was actually conducted on Fort Dix property.

Herbert, Bertram, and Robert Grumet

- 1993 *Cultural Resource Assessment and Management Recommendation Report, McGuire Air Force Base, Burlington and Camden Counties, New Jersey.* National Park Service, MidAtlantic Region, Cultural Resources Planning Branch.

Information Source: McGuire Air Force Base

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

NEW YORK**Plattsburgh Air Force Base**

DeRoche, C. D.

1978 *Plattsburgh Historic and Architectural Survey.*

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

McCrary, Pame Alonia, and Moody G. Kenin

n.d. *The Military History of Plattsburgh.* AIC.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

No Author

1970 National Register of Historic Places Inventory Nomination Form for Building 625, Family Housing Appropriated.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

No Author

1988 National Register of Historic Places Inventory Nomination form for the United States Oval Historic District.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

NORTH DAKOTA**Grand Forks Air Force Base**

Survey was underway at the time of the evaluation. No bibliographic citation was available.

SOUTH CAROLINA

Charleston Air Force Base

Ehrenhard, John E.

- 1984 Letter to Charles E. Lee of the Department of Archives and History reporting the results of a preliminary reconnaissance of cultural resources at Charleston Air Force Base, August 30.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Husted, Wilfred M.

- 1984 Letter to Patricia M. Calliott reporting on preliminary surveys at Pope, Charleston, North Auxiliary Field, and Little Rock Air Force Bases, May 31.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

North Auxiliary Field

Ehrenhard, John E.

- 1984 Letter to Charles E. Lee of the Department of Archives and History reporting the results of a preliminary cultural resources survey at North Auxiliary Field, June 26.

Information Source: HQ AMC bibliography

Collection Location: South Carolina Institute of Archaeology and Anthropology,
Columbia

Documentation Location: South Carolina Institute of Archaeology and Anthropology,
Columbia

Husted, Wilfred M.

- 1984 Letter to Patricia M. Calliott reporting on preliminary surveys at Pope, Charleston, North Auxiliary Field, and Little Rock Air Force Bases, May 31.

Information Source: HQ AMC bibliography

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Martin, Debra K.

- 1986 *Archaeological Site Survey and Site Recording at North Auxiliary Field, South Carolina.*

Information Source: Charleston Air Force Base

Collection Location: South Carolina Institute of Archaeology and Anthropology,
Columbia

Documentation Location: South Carolina Institute of Archaeology and Anthropology,
Columbia

Martin, Debra K.

- 1991 *Archaeological Site Survey and Site Recording at North Auxiliary Field, South Carolina (Revision).*

Information Source: Charleston Air Force Base

Collection Location: South Carolina Institute of Archaeology and Anthropology,
Columbia

Documentation Location: South Carolina Institute of Archaeology and Anthropology,
Columbia

WASHINGTON

McChord Air Force Base

Argonne National Laboratory

- 1994 *Site Review of McChord Air Force Base, Pierce County, Washington.*

Information Source: Argonne National Laboratory, Argonne, Illinois

Collection Location: No materials were collected.

Documentation Location: Argonne National Laboratory, Argonne, Illinois

Cliff, Maynard B.

- 1992 *Environmental Assessment of Portions of McChord Air Force Base and Camp Murray in Pierce County, Washington. Letter report prepared by Geo-Marine, Plano, Texas, 10 July.*

Information Source: Washington State Historic Preservation Office, Olympia

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Corbyn, Ronald C.

- 1990 *Cultural Resource Assessment and Management Recommendations for McChord Air Force Base, Pierce County, Washington*. National Park Service, Interagency Archeological Services, San Francisco.

Information Source: National Park Service, National Archeological Database, 5/5/93 search

Collection Location: No materials were collected.

Documentation Location: No documentation was located.

Dickey, George

- 1986 Hudson's Bay Company Sites in Pierce County." Unpublished manuscript on file at 62 SPTG/CEVN, McChord Air Force Base.

Information Source: Washington State Historic Preservation Office, Olympia

Collection Location: Undetermined (if any)

Documentation Location: Undetermined

Gallacci, Caroline, and Mike Avey

- 1986 *A Preliminary Research Investigation of Hudson's Bay Company/Puget Sound Agricultural Company Sites Located in Pierce and Thurston Counties*. Pierce County Department of Planning and Development, Tacoma, Washington.

Information Source: Washington State Historic Preservation Office, Olympia

Collection Location: Undetermined (if any)

Documentation Location: Undetermined

Larson, Lynn L., Leonard Forsman, and James H. Forrest, Jr.

- 1993 *Fort Lewis/McChord Air Force Base Cross-Base Corridor, Pierce County, Cultural Resources Study*. Larson Anthropological/Archaeological Services, Seattle. Report prepared for Parmetrix, Kirkland, Washington.

Information Source: Washington State Historic Preservation Office, Olympia

Collection Location: Undetermined (if any)

Documentation Location: Undetermined

Nadeau, Gene A.

- 1972 Hometown Study: McChord Air Force Base, Washington. Unpublished manuscript on file at 62 SPTG/CEVN, McChord Air Force Base.

Information Source: Washington State Historic Preservation Office, Olympia

Collection Location: Undetermined (if any)

Documentation Location: Undetermined

Stoll, Irwin D.

- 1977 Report on Historic Study and Physical Survey of Archaeological Investigations of McChord Air Force Base. Manuscript prepared for Fort Steilacoom Community College class project.

Information Source: National Park Service, National Archeological Database 5/5/93 search

Collection Location: No materials were collected.

Documentation Location: Undetermined

Walitschek, D. A., J. F. Hoffecker, and M. Greby

- 1994 *Prehistoric and Historic Archaeological Resources at McChord Air Force Base: Field Survey Report* (August Draft). Argonne National Laboratory, Argonne, Illinois.

Information Source: Washington State Historic Preservation Office, Olympia

Collection Location: Undetermined

Documentation Location: Undetermined

APPENDIX II

THE UNIVERSITY OF SOUTH CAROLINA SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY

CURATION STANDARDS

The following standards apply to all artifact collections accepted by SCIAA for curation:

(1) The collection must be appropriately cleaned, cataloged, conserved, packaged, and labeled.

—Cleaning and conservation procedures should be appropriate to the material as per the professional judgement and discretion of the investigating Archaeologist. If desired, conservation services can be provided by SCIAA via separate, prearranged funding agreements.

—Artifact cataloging and labeling should include the State site number and provenience designation. The use of a specific cataloging system is not required as long as the materials are cataloged in some logical manner, and accompanied by explanatory documentation, so that the collection continues to have research utility for other investigators.

—Artifacts should be packaged, minimally by material class and provenience, in ziplock plastic bags at least 2 millimeters in thickness. Paper bags, non-ziplock plastic bags, and the use of rubber bands, tape, staples, or paper clips are NOT suitable packaging alternatives. Material class bags (and any analytical groupings within these) should be labeled on the exterior and on a paper tag inside, with site and catalog number, and contents. The overall bag for the provenience, containing the material class bags, should be labeled with the site number, enclosed catalog numbers, site and/or project name, provenience information, investigator's affiliation, recovery date, and bag number (e.g., Bag 1 of 2). This same information should be replicated on a paper tag within the bag as well. All bag labeling should be done clearly and legibly, in permanent black marker (e.g., sharpie).

—The collection should be packed in medium-sized boxes (approximately 1 cubic foot) that are clean, sturdy, and easily handled. Boxes should not be overloaded!! Artifact bags should be arranged in the boxes in site number order and by catalog number within each site. Each box should contain an inventory list of its contents. A typed tag should be stapled to the box exterior that clearly states the site number(s), catalog numbers for each site, project name, investigator's affiliation, year of recovery, and box number (e.g., Box 1 of 4).

(2) The collection must be accompanied by appropriate records and documentation.

—A complete catalog for the collection (including all field samples such as soil, shell, etc. that are going to be curated) and an explanation of the cataloging system should be submitted, as well as a separate list of conserved objects in the collection and a description of the conservation treatments they received, and a copy of the final project report.

—Site Inventory Record Forms (68-1 Rev. 85) for the project should already be on file at SCIAA as they are required before State site numbers are assigned. If the project entailed work at a previously recorded site, an updated Site Inventory Record Form reflecting any additional work and/or changes

to the site since it was last recorded should be submitted with the collection (preferable earlier).
–SCIAA also curates project-related field and laboratory records, maps, drawings, and photographs.
An inventory list should accompany these materials if they are submitted for curation.

APPENDIX III

COLLECTIONS MANAGEMENT POLICY OF DELAWARE STATE MUSEUMS

I. PURPOSE AND GOALS

- A. The purpose of Delaware State Museums is to collect, maintain, preserve, exhibit, interpret, and publish for the citizens of Delaware and the public the archaeological, historical, cultural, commercial, and industrial life of the State from 10,000 B.C. to the present day.
- B. The goal of the collections of Delaware State Museums is to provide a better understanding of the historical and cultural diversity of the people and governmental heritages of the State. Through exhibits and public programs, the collections reflect the changes of Delaware's history. The value of the collections is the documentary record of Delaware's heritage for the present and the future.
- C. Delaware State Museums serves [sic] a unique role within the State as the principal depository of archaeological and historical collections. Objects and collections are accepted on the basis of a demonstrated significance to the history and culture of the State of Delaware and held in public trust for these reasons. Priority is given to those objects with historical documentation.
- D. The State collections include prehistoric and historic archaeological artifacts and materials; decorative art furnishings; works of art; objects of the military, commerce, industry, transportation, medicine, handcrafts and politics; clothing and textiles; books and papers; household equipment and memorabilia. Special collections include the State Portrait Collection, and the early sound recording and equipment of the Johnson Victrola Museum.
- E. The collections are located in the following museums and historic sites operated by Delaware State Museums or in agreement with the State:

MUSEUMS

Allen House
John Dickinson Plantation
Meeting House Galleries, I and II
Octagonal Schoolhouse
Old New Castle Court House
Old Sussex County Court House
State House

State Visitor Center
Zwaanendael Museum

CONFERENCE CENTERS

Buena Vista
Belmont Hall

PARKS AND MONUMENTS

Cooches Bridge Monument
DeVries Monument
Fort Christina State Park

SUPPORT SITES

DeBraak Building
Exhibits Lab
Island Field Archaeological Research Center
Rose Cottage
Smyrna Warehouse

HIGH PROFILE STATE FACILITIES WITH SUBSTANTIAL MUSEUMS COLLECTIONS

Woodburn, The Governors House
Hall House
Legislative Hall

ADMINISTRATERED [sic] SITES

Robinson House
Hale Byrnes House
Lindens
Old Milford Post Office
Abbots Mill
Prince Georges Chapel
Original Fisher-Martin Home Site
Fisher-Martin House
Fenwick Island

II. COLLECTIONS COMMITTEE

- A. A committee of Delaware State Museums has been established and is known as the Collections Committee. The Committee is responsible for the overall supervision of the collections of the State of Delaware based on the policies, procedures, and practices of Museums as outlined in the Collections Management Policy. The Committee is charged with the responsibility of recommending all acquisitions, loans, and deaccessioning of objects/artifacts in the State's collections and reviewing current information on tax laws, ethics codes and etc. The Committee must be supportive of the purposes of Museums. (See X. ETHICS.)
- B. The Committee is composed of the Administrator of the Museums, the Curator of Collections, the Curator of Archaeology, the Curator of Registration, and up to three individuals from the public domain with a demonstrated interest in the goals of Museums. The Director of the Division of Historical and Cultural Affairs and other Curators and Site Supervisors may attend as necessary. A quorum of three, to include the Administrator, one curator and one public member must be present to hold a meeting. In the absence of the administrator, a meeting may be held with the addition of his written or oral comments prior to the meeting, and a second curator. Curators make proposals for membership to the Administrator for approval, who will forward the recommendation to the Director for final confirmation.
- C. The committee meets whenever necessary, as determined by the Curator of Collections, usually three to four times on an annual basis. The Curator of Collections calls the meeting, compiles the agenda with recommendations and presides over the proceedings.
- D. The following rules guide the Collections Committee:
 - 1. No object/artifact may be acquired for the collections without the approval of the Committee. However, objects of low monetary value, yet with great historical or cultural significance, may be directly purchased by the Administrator or designed [sic] Curators.
 - 2. All loans are recorded by the Registrar and submitted to the Committee for the record. Any questionable loans are discussed by the Committee.
 - 3. The Curator of Collections recommends objects for accession/deaccession to the Committee. This is done in concurrence with outside expertise if necessary.
 - 4. The Collections Committee must approve all objects for deaccession.
 - 5. The Curator of Archaeology recommends a list of artifacts which are eligible for donation or purchase. He reports collections received from State supported archaeological activities.

6. Summaries of collections management and research activities that have occurred since the last meeting are reported by the Curators of Collections and Archaeology.
7. The Committee and Museum staff must keep current on issues such as tax laws, ethics codes, and changing responsibilities for museums.

III. ACQUISITION OF OBJECT/ARTIFACTS

- A. The acquisition, care, and use of tangible objects/artifacts that represent Delaware's cultural wealth, entails the highest public trust. Museums has an ethical obligation to acquire objects that support its purpose. Acquisition carries with it the presumption of rightful ownership, permanence, perpetual care, documentation, study and access by the public. Museums also has an obligation to strengthen its collections in support of its purpose and to enhance its public service through responsible disposal.

Means

- B. Objects/artifacts considered for acquisition are based on these factors: provenance; quality; rarity; intellectual value; physical attributes; cultural diversity; condition; price; cost of conservation, storage, and maintenance; exhibit and publication potential. Delaware State Museums acquires collections through gift, bequest, purchase, exchange, transfer, and scientific archaeological research. Full documentation by the Curator of Collections/Archaeology and prompt recording by the Curator of Registration of all collections, both accessioned and non-accessioned is completed. This permanent information consists of the historic, aesthetic, archaeological, scientific, and operational data compiled on each object/artifact.
- C. Delaware State Museums does not knowingly accept or acquire any object/artifact that was illegally imported into the United States, or that was collected under circumstances that would encourage or support irresponsible damage, looting, or destruction of prehistoric and historic archaeological sites in the State of Delaware or elsewhere. No object/artifact is acquired contrary to any law, regulation, treaty or convention.
- D. Nothing in this policy prevents Delaware State Museums from acquiring objects, either by donation or purchase, to be used for functional and/or interpretive purposes. Such objects/artifacts are placed on a property inventory and do not receive the same care and protection as the general collections. Property status allows for the object/artifacts' active use. The exception for property items are Victor sound recordings, which receive care and protection. These recordings are not accessioned because of the necessity for trade or sale for the continual upgrading of the Johnson Victrola Museum.

- E. An object/artifact is accepted for collections only when there is good faith intention to accession, or place on property inventory. Collections are not accepted for resale.

Criteria

- F. Objects/artifacts are acquired for the collections only if they meet the following criteria.
1. The object must relate to the culture and history of the state of Delaware, and/or to the Mid-Atlantic region. The object/artifact should enhance Museums collections and be consistent with the purposes of Delaware State Museums.
 2. The archaeological collections consist of artifacts/materials from Delaware archaeological sites. Artifacts/materials collected from the Mid-Atlantic region can be considered but are evaluated as to their archaeological importance and research value.
 3. The object/artifact must have a significant level of design and workmanship, or, be the best available example of a representative type, or, must contribute to the understanding of the prehistoric, historic, aesthetic, or cultural significance of the State of Delaware.
 4. The object/artifact must have historical authenticity, physical integrity, and be in appropriate condition for display, exhibit, or study. If the object meets all criteria except condition, then it must be restorable with State's resources. The object must be of suitable size and composition to ensure its protection and storage.
 5. The object/artifact must have free and clear title. Restrictions such as permanent display, designated location, specific use or other conditions will make the object unacceptable to the State.
 6. The object/artifact must not be restricted or encumbered by less than full intellectual rights, such as property rights, copyrights, patents, trademarks or trade names; or by its nature: whether it's obscene, defamatory, an invasion of privacy or physically hazardous.
 7. The object/artifact must not pose an excessive administrative or financial burden.

Procedure

- G. Gifts or donations constitute the primary means of acquisition for the collections of the State of Delaware. Gifts are accepted by Delaware State Museums on behalf of the State and the people. Museums is the agency entrusted with the safekeeping and recording of such objects.
1. Gifts made to the Governor and to other high ranking officials on behalf of the State are considered as gifts to the State and the people.
 2. A certificate of gift, signed and dated by the donor, transferring unconditional ownership of the object/artifact to Delaware State Museums must accompany all gifts.

3. The date of acquisition is determined as the day on which the object entered Museums care, custody, and control. A temporary receipt is noted on gift form once the object has been accepted by the Collections Committee. Every effort is made to accession and catalog the object/artifact promptly.
 4. Donors may take a deduction in computing taxable income in the amount of the value of the gift set by the IRS. Deduction must be taken within the year of donation.
 5. The staff of Delaware State Museums does not make verbal or written appraisals for tax purposes of objects donated to the State. Staff may help donors arrange for appropriate appraisals. Donors bear the cost of appraisals made for tax purposes.
 6. Archaeological artifacts/materials can be received by gift after the determination that their recovery did not occur in violation of scientific archaeological standards, practices, ethics, and/or violation of laws of the United States and the State of Delaware.
- H. Objects/artifacts promised through bequests are handled as gifts once the written agreement comes due. An intent of gift form is signed and dated by the donor at the time of the bequest, and is updated every two years to confirm the donation.
- I. The purchase of objects/artifacts may be made when funds are appropriated or made available through the Museum Fund.
1. The direct purchase of an object/artifact may be made by the Administrator or curators if the price does not exceed \$500. Purchase may be made before the Collections Committee is informed. This is to allow for the immediate acquisition of an object because of its availability. Purchases of over \$500 are made only after the Curator of Collections/ Archaeology has informed the members of the Collections Committee.
 2. Archaeological artifacts/materials can be acquired by purchase provided their recovery did not occur in violation of scientific archaeological standards, practices, ethics, and/or violation of the law of the United States and the State of Delaware.
 3. The purchase of objects/artifacts with money from Appropriated Special Funds must conform to the stated purpose of the fund. Special funds are as follows:

E. R. Johnson Memorial Trust Fund for the improvement and enlargement of the Eldridge Reeves Johnson Memorial exhibit, the means of displaying the exhibit and of simulating by modern recording and reproducing devices the music of the early records and talking machines. (See Trust Agreement for further detail).

Museum Fund is the revolving fund from publications, souvenir sales, and donations which may be used for collections purchases and conservation.

4. All purchases must conform to the approved furnishing and collecting plans for historic sites and museums.
 5. The encumbrance requirement covering purchases over \$1,000 is waived for Museums for purchases of objects at auction. This applies to on site auctions. Mail auctions are still covered with purchase orders. See attached 9/19/91 memo from Chief of Financial Services to Office of Secretary of State.
- J. The exchange of objects/artifacts is discussed under deaccessioning.
- K. The transfer of an object/artifact from an institution to Delaware State Museums is accepted if it meets all criteria for donations as approved by the Collections Committee.
- L. Artifacts or collections may be acquired through state sponsored archaeological field work, including surface collecting and excavations. These collections are obtained in cooperation with participating state agencies. Museums refuse artifacts/materials when their recovery was through looting and illicit or destruction of an archaeological site, or involved misrepresentation to the owner or responsible governmental entity. Field collecting is conducted in cooperation with local authorities, private land owners and other research institutions.
- M. Parallel collecting patterns among regional and local museums and historical societies do occur. Some overlap in collecting is inevitable and desirable; however, competition for a particular object/artifact is not. Competition in the market place among these museums and historical societies is to be avoided. When more than one museum or historical society seeks to acquire the same object/artifact or collection, the situation must be resolved among the administrators.
- N. When an important collection cannot be accommodated and accepted, the curators may assist potential donors to locate regional or local repositories which can effectively use the collection for educational purposes.

IV. DISPOSAL OF OBJECTS/ARTIFACTS (Pending Legislative Approval)

Means

- A. Disposal or deaccessioning, is the process of permanently removing accessioned objects/artifacts from the collections. The procedure is cautious, deliberate, and scrupulous. It is designed to insure the thoughtful, well documented consideration of each proposed disposition in the context of the long-term best interest of Delaware State Museums.

- B. Because the archaeological collections are Delaware's prehistoric and historic record, and because of the nature of scientific research, collections or portions there of, are not disposed of or deaccessioned.

Criteria

- C. Objects considered for deaccession must have been accessioned for at least seven years and meet at least one of the following criteria.
1. The object or material is outside the scope of the purpose of Delaware State Museums and its acquisition policy.
 2. The object is no longer relevant or useful to the purposes of Delaware State Museums.
 3. The object lacks physical integrity.
 4. The object has failed to retain its identity or historical authenticity.
 5. The object has been lost for longer than five years, or, stolen from the collections.
 6. The object is twice duplicated.
 7. The Museums is unable to preserve, conserve, exhibit, or interpret the object properly.
 8. The object is deteriorated beyond usefulness for exhibit or study.
 9. The object has doubtful potential use for the foreseeable future.
 10. The object presents a danger to the rest of the collections or the staff.
- D. The Administrator, Curators of Collections and Registration are authorized to apply, jointly or singly, the above deaccession criteria. The Collections Committee and outside experts may help in the recommendations.

Procedure

- E. The Administrator, Curators of Collections and Registration may recommend deaccessioning an object if, in their best judgement, one or more criteria for deaccession have been met. The Curator makes the recommendation in writing to the Administrator. Such recommendations specify the source and provenance, the reasons, the estimated market value and the means of disposal. The Administrator submits the recommendations to the Collections Committee for their deliberation two weeks before a scheduled meeting.
- F. Recommendations of the Collections Committee may include:
1. Exchange or donation to another public institution, with preference to Delaware museums or historical societies for the benefit of the people of the State of Delaware, then to institutions outside the State. Valuations for exchange must be established by a neutral private appraiser. The valuations must be approximately equal.

2. Sale at public auction through the Division of Purchasing, surplus property section. Such sales are officially advertised at least 60 days prior to the date of the proposed sale, and clearly noted as deaccessioned objects not found relevant to the collections of Delaware State Museums. Disposal through museum auctions or the museum store are prohibited. These practices may give the impression that collections objects are for sale and so damage Museums' reputation and its ability to fulfill its public trust responsibilities. Money realized from the disposal of collections is to be used for additional object acquisition.
3. Destruction of the object as permitted within surplus property procedures. Objects must be:
 - a. a clear danger to the remainder of the collections or staff,
 - b. condition must be beyond practical conservation efforts and of little or no historical or interpretive value.

Objects recommended for destruction are registered with State Surplus property. Such objects may not be sold and their destruction must be attested by surplus property officials. Photographs before and after destruction become a part of the permanent record.

4. Retention of the object/artifact in its present status within the collections of Museums.
- G. Before disposal of any object from the collections, reasonable efforts should be made to determine that Museums has full and unrestricted title. In the event of a question concerning Museums title or restrictions, the staff will seek the advice of the Attorney General's Office.
 - H. The manner of disposition must be in the best interest of Delaware State Museums, the public it serves, the public trust it represents in owning the collections, and the scholarly and cultural community it represents.
 - I. The original donor or the direct heirs (spouse or child) of the object must be notified of the pending transactions of disposal. Objects are not to be returned to the original donor. If unsuccessful in contacting donors or heirs, then procedure is in accordance with established state laws.
 - J. Objects must not be given, sold or transferred, publicly or privately, to Delaware State Museums and Department of State employees, committee members, or, their immediate families or representatives.
 - K. All object records, deliberations, staff comments, appraisal, sale and exchange records are permanently retained as part of the collections records of Delaware State Museums.

- L. All net proceeds resulting from the deaccession of objects from the permanent collections of Delaware State Museums are deposited in the Museum fund or any Appropriated Special Fund that is dedicated to the acquisition and conservation of objects at the recommendation of the Administrator and final confirmation by the Director. The principal of this fund is reserved for acquisitions, conservation and other special collections related purposes. Any costs of sale, appraisal or other expenses associated with the deaccession transaction is charged against the sale proceeds.

V. LOAN POLICIES

- A. In general, Delaware State Museums lends its collections for educational, non-profit purposes to similar institutions. Museums lends and borrows collections for exhibit, research, and for the public enjoyment. Borrowing organizations must comply with environmental requirements, safety, and security precautions during transport and display, and avoid use for private monetary gain. The organization will complete a facilities report form before the approval of the loan, which contains building construction, security, dimensions of exhibit rooms and storage areas, climate control, lighting and availability of experienced art handlers.
- B. Requests to borrow unique or important collections is considered because of: the nature of the object or collection; the impact of its absence on the visiting public and scholars; the condition; and security, environmental and legal restrictions. A condition report is completed for each object/artifact loaned by the Curator of Collections or Archaeology.

Loans are made for specific time periods, with renewal options. It is not the policy to accept “indefinite loans”. If an object/artifact is requested as an extended loan, it can be renewed every two years only after inspection for condition by the Curator of Collections or Archaeology. The Collections Committee reviews all loans, and the Curator of Registration monitors renewal.

- C. As long-term loans commit Museums resources to the care and documentation of objects/artifacts it does not own, such loans should be accepted only when they have immediate utility or clear potential for future benefit and are in compliance with Museums purpose. They may be encouraged when the institutional program, including exhibitions, is strengthened by their presence. Museums should not, however, become so dependent on long-term loans that their withdrawal would compromise its ability to meet its purpose.
- D. 1) Requests for the loan of collections to decorate offices of government officials may be granted by Delaware State Museums if they are to be displayed in the office of a high-ranking official.

- G. Display of the State Portrait Collection will be allowed in State and County government buildings, other than those listed under high-ranking officials, because of the nature of the collection. Any loan must be in writing and must be signed on behalf of Museums and the borrower by individuals authorized to enter into such commitments. The borrower must request the loan of a portrait in writing and state the reasons why the portrait is important for public display in the building.
- H. Loans of objects/artifacts from the museums collections for decorations at social events are not made as a general rule. Any exceptions to this policy must be approved by the Director of the Division and forwarded promptly to the secretary of State. The request must be written.
- I. The transfer of objects/artifacts can be made to any museum or historic site operated or leased by Delaware State Museums. Requests for transfers of objects should be directed to the Curators of Collections/Archaeology. A change of location form should be promptly given to the Curator of Registration.
- J. Original archaeological field and laboratory records, research notes and historical collections files are not loaned. Use is restricted to designated Delaware State Museums under curatorial supervision.

VI. TEMPORARY CUSTODY

- A. Delaware State Museums can receive objects/artifacts and collections in temporary custody for purposes of attribution, examination, identification, and for consideration as a gift or purchase. A temporary receipt "Objects Left in the Custody of the Museums" is completed at the time of delivery and acceptance by designated staff. The work must be expedited by the Curators of Collections or Archaeology, who may engage the advice of outside experts. Decisions to accept a gift or to purchase is made by the Collections Committee in a timely manner. Each object/artifact or collection received is recorded promptly and given standard care by the Curator of Registration. Objects/artifacts held in temporary custody are generally not insured.
- B. No object/artifact is accepted without the approval of the Curators of Collections, Archaeology or Registration. However, when curators are unavailable, information about the object/artifact and donor should be obtained and directed to them.

The exception is the acceptance of early Victor sound recordings.

VII. CARE AND CONTROL

- A. Collections are cared for and maintained in conditions intended to preserve

physical integrity. Conservation, restoration, and maintenance schedules should reflect research and exhibition needs, scholarly activities, funding, staff resources, public access requirements and urgency of care. The Curators of Collections and Archaeology monitor collections care and condition, make recommendations to the Administrator and Collections Committee, and carry out treatment and maintenance plans.

- B. Site personnel visually inspect displayed collections on a regular basis to record physical changes. Change is documented on a Damage Report form by the staff member discovering the change. The form, along with the object, if appropriate, is given to the Curators of Collections/Archaeology immediately. The appropriate curator must be contacted before the form is completed.
- C. Decisions to engage a professional conservator must address the object/artifacts aesthetic, historic, scientific, and physical integrity. Documentation of treatment clearly identifies the degree and type of restoration and replacement of the original fabric. Conservation treatments must be reversible.
- D. All staff employed by Delaware State Museums undergo training sessions on the care and handling of historic objects/artifacts and on housekeeping held by the curators of Collection and Archaeology. Literature on "Guidelines for Handling Historic Objects" and "Housekeeping Guidelines" are read and followed. All staff are made aware of their responsibilities to preserve and protect collections objects/artifacts. Checklists of maintenance cleaning procedures are kept at each site.
- E. Adequate protection against insects, mold, dust, sunlight, fluctuations in humidity and temperature, fire, natural disasters, and theft are provided through maintenance plans. A separate Integrated Pest Management program must be followed. Regulations in housekeeping guidelines must be followed to prevent mold, dust, and sunlight from harming the collections in all sites including historic houses, museum displays and exhibits and storage areas. Environmental controls for humidity and temperature must be monitored by hygrothermometers at all sites. These readings are done on a daily basis at the same time by appropriate staff. When the ideal readings of 60-72 degrees and 40%-55% are not met on a weekly basis, the Curators of Collections or Archaeology must be notified by the Site Supervisor. Fire, natural disaster and theft are addressed under the risk management section of this policy, and follow the Emergency Preparedness Plan.
- F. Food or drink is prohibited in storage or exhibit areas. Areas for such purposes are designated in each building. Smoking is prohibited in all areas of any museum or site.
- G. Appropriate attention is given to the packing and shipping of any collections objects/artifacts moving in and out of Delaware State Museums properties.

Procedures and methods of packing are monitored by the Curators of Collections and Archaeology. Record control of the movement is kept by the Curator of Registration. Each object is examined for condition and a condition report form is completed by the appropriate curator. Condition is checked before the object is loaned, upon arrival, before being shipped back and upon its return to Museums. This is done to determine whether any damage occurred during the loan period, during shipment or on the borrower's premises. A condition report is completed on borrowed objects. Evidence of damage at the time of receipt or while in the Museums custody is reported immediately to the lender. The lender certifies that the objects/artifacts lent are in such condition as to withstand the vigors of packing and shipping.

- H. Storage areas are monitored by the Curators of Registration, Collections and Archaeology for the safety of the collections. These areas must be free from insects, mold, dirt, and sunlight. Cleaning on a regular basis must take place. Packing materials must be of a protective nature, such as acid-free products. Supplies, equipment and exhibit props are not stored in these areas. No food, drink, or smoking is allowed. Trash cans are not placed in storage. When needed, they are brought in and removed. Storage areas must be a function of storage only. Mixtures of collections processing and exhibit preparation are not allowed in storage areas.
- I. Delaware State Museums gives objects/artifacts borrowed the same care as it does comparable property of its own. It is understood that all objects/artifacts are subject to gradual inherent deterioration for which neither party is responsible. No alteration, restoration, or repair is undertaken on borrowed or lent objects without written authorization.
- J. No collection item leaves its assigned storage or display location unless a written record of such movement is made and the record filed with the Curator of Registration. A curator may remove an object/artifact from display or storage for study purposes by logging it in the record book provided at each site for that purpose and by completing a Temporary Object Removal form. The Curators of Collections and Archaeology determine if the object's condition can merit such a transfer.
- K. The Curator of Registration mandates control of incoming and outgoing collections through various registration methods. These include loan forms, transfers, staff log books, and temporary removal forms.

VII. RISK MANAGEMENT/SECURITY

- A. The most important asset of Delaware State Museums is the collections. Prudent management requires identification and elimination or reduction of risks to the collections. Risk management requires thoughtful review of potential hazards

such as natural disasters, vandalism, theft, human error, mechanical or operational system failure and deterioration on a regular basis. A separate Emergency Preparedness Plan is followed. Internal control is fundamental to collections security. Records of missing or stolen collections are maintained by the Curator of Registration.

- B. Museums physical facilities need to be safe, secure, and adequately maintained for the care of the collections. Special attention to security is expected during high risk activities such as building and exhibition renovations, special events held in museum buildings, and when collections are in transit.
- C. If theft is suspected, employees or borrowers must immediately notify either the Curators of Collections, Archaeology, or Registration. If theft has occurred, the police are notified. Staff is responsible to protect the crime scene and not disturb evidence. The responsible Curator promptly prepares written and photographic documentation.
- D. Delaware State Museums carries no insurance coverage, but may insure borrowed objects/artifacts only as stipulated by loan agreement or negotiated contract. Generally, a loan agreement constitutes an agreement of the lender to release and hold harmless Museums from any liability for damage or loss of loaned property. If the lender elects to maintain their own insurance coverage, Museums must be supplied with a certificate of insurance naming Museums as additional insureds (or waiving rights of subrogation.) Collections held in temporary custody are not insured.

VIII. ACCESS AND REPRODUCTION

Access

- A. Delaware State Museums has the responsibility and opportunity to provide the visiting public access to the collections of the State of Delaware on a nondiscriminatory and fair basis, while ensuring preservation. Access to collections for research and for public enjoyment is encouraged through exhibition, object/artifact availability, publications, outreach programs and reference facilities under controlled conditions. Resource limitations, security, intellectual property restrictions, and collections care requirements limit access to the collections. Museums encourages public inquires and disclosure of accessions through exhibits and annual reports.
- B. The Curators of Collections, Archaeology, and Registration are responsible for the protection, control, and access to the physical and intellectual collections of Delaware State Museums. Responses to requests for access and use of the collections are the responsibility of these curators. The curatorial and permanent staff are allowed access to the intellectual collection (the accessions and catalog

files) for research and exhibit purposes. The public, including researchers, are allowed prudent access to the files under controlled conditions. The Curator of Registration is responsible for the security of the physical and intellectual collections.

- C. Access to the collections for study purposes will be controlled so as to prevent
 - 1) the deterioration, loss, or dislocation of objects/artifacts
 - 2) the disruption of administrative, professional, or technical operations
 - 3) undue impact on providing services to other Museums users, because of time spent on supervision of the researcher.
- D. Access to collections takes place outside storage areas, but when necessary, access inside may be granted for no more than two individuals at one time. Supervision is required by a Curator. Staff other than the Curators are not granted unsupervised access to collections without approval of either the Curators of Registration, Collections, or Archaeology. Designated volunteers may be approved supervised access for cataloging or study purposes.
- E. Access to the collections of Delaware State Museums does not imply any agreement between the researcher and Museums, and does not constitute approval of work objectives, agreement with research conclusions, acceptance of the accuracy or quality of the work, or any abridgement of access rights of others to the same materials.

Reproduction

- F. In order to control the educational and commercial use of the name and collections of Delaware State Museums, it is necessary to establish rules protecting the rights of individuals and the State. Generally, non-educational reproduction of the collections including photography, graphics, and manufacture is not approved. Delaware State Museums reserves all rights for the reproduction of its collections. No commercial reproduction or publication is permitted without written approval of the Museum Administrator, and acceptance of the conditions detailed in the Request for Reproduction form.

Reproduction for educational purposes or private use may be requested by completing the same form. Museums requires a copy of the publication upon release. Reproduction should never impair the integrity of Museums or the intrinsic value of any object/artifact. Replicas and reproductions are accurate, of high quality and clearly and permanently identified as reproductions. Commercial activities must not support illicit trade or the degradation of cultural resources.

- G. Museums reserves the right to deny access for photographic or reproduction purposes if such work would:

- 1) endanger the collections or building
 - 2) pose an excessive administrative burden
 - 3) violate trademark
 - 4) violate privacy, publicity, or other personal rights of any party
 - 5) infringe copyrighted material
 - 6) involve a use for illegal or fraudulent purposes
 - 7) interfere with an intended Museums use or other State agency
 - 8) imply an institutional endorsement of any product, company, or enterprise.
- H. All photographs or graphics for commercial or publication purposes are made by or contracted for professional services by Museums, unless specific exception is granted in writing by the Administrator. All photographs and graphics bear Museums copyright notice and may state specific use requirements or limitations. Museums may, at its discretion, request or prohibit the credit line, "Courtesy of Delaware State Museums, Dover"; or require a specific disclaimer of any connection with Museums of any endorsement or approval by Museums.
- I. Museums establish, and adjust as needed, a fee schedule for all photographic and other copy work. Fees are payable in advance, except through special arrangements with the Administrator. Purchase of copyrighted photographs do not convey to the purchaser any rights of copyright. Museums reserves the right to levy fees for the commercial use of its copyright materials, photographs, and reproductions. These services are provided as quickly as possible depending upon the availability of relevant staff.
- J. Museums reserves the right to license vendors, collect royalties, initiate fees, or otherwise control the use of its collections and its name and logo as is appropriate.
- K. Use of Delaware State Museums name, logo, or any other symbol, or any device implying the involvement or approval of Museums in the commercial reproduction of collections; or any representation suggesting this approval; is strictly prohibited, except as specifically authorized by Museums. Approval by Museums takes the form of a negotiated State of Delaware contract between the "user" and the "State", which sets forward the duties and obligations of each party. No member of Museums staff may derive income of any sort, or any commercial benefit, from the reproduction and sale of articles reproducing Museums collections.

IX. DOCUMENTATION

- A. Delaware State Museums maintains a physical collection and a corresponding intellectual collection. Accurate, complete and timely documentation increases research opportunities and improves access and collection care routines. Collections records are of the highest order of accuracy and completeness in order to insure their preservation.

This collections information consists of the historic, aesthetic and scientific data, and operational documents generated by collections management activities.

- B. Documentation generated by curatorial functions provides a broad body of information about an object/artifact which establishes its proper place and importance within its cultural context. Good registration records include descriptive catalog information as well as evidence of present legal and past ownership. Research on information of ownership, description, provenance, conservation, exhibition, publication, and research is the responsibility of the Curators of Collections and Archaeology. The material is placed and maintained in the accessions and catalog files by the Curator of Registration.
- C. Documents associated with registration functions track the object's legal status and care within Museums or when on loan or transfer. Legally binding contracts include loan agreements, deeds of gift, temporary custody receipts, request for reproduction forms, insurance contracts, exhibition agreements, facilities report forms and condition and damage reports. These records relate to the objects by its unique accession number and provide for the easy retrieval of object information as well as current object locations. A computerized automated inventory, besides the written manually controlled information, is maintained by the Curator of Registration on a timely basis.
- D. In order to police collections activities and maintain accountability, inventory procedures are established. These procedures are created to maintain accurate, complete and timely records, guided by an inventory plan. An inventory plan identifies valuable, sensitive, historically, archaeological and culturally important collections; establishes dates and times for systematic inventories; and describes manual and automatic records which establish control. After physical inspection, the record must be reconciled with previously existing records. Risk of loss to the collections may be reduced by separating control of inventory records from access to the physical collections. Regular, periodic comparison between inventory records and the physical collections is necessary. These procedures are the responsibility of the Curators of Registration and Archaeology.
- E. Inventory of objects/artifacts on display at each site is completed by designated site staff on a yearly basis under supervision by the Curators of Registration, Collections, and Archaeology. Periodic spot checks may also be conducted. Objects/artifacts on loan to outside agencies are checked by condition by the Curators on a yearly basis. Objects/artifacts on loan to outside institutions for exhibit or research purposes are checked on a yearly basis for condition and safety. The State Portrait Collection is checked on a yearly basis for its condition and safety.
- F. Objects/artifacts that are missing are reported to the Curator of Registration. Damaged objects/artifacts are reported to the Curator of Collections or

Archaeology. A damage report is completed by the staff member who discovered the problem.

- G. All collections records are housed in secure locations and physically preserved by proper handling and storage methods. A duplicate copy of records such as microfiche, are made and stored outside the Museums central office.
- H. The destructive testing of archaeological artifacts/materials is permitted when this testing is an integral and essential component of an archaeological research strategy. Testing is recommended by Curator of Archaeology with approval of the Administrator and the Collections Committee.

X. ETHICS

- A. Delaware State Museums is mandated to serve the people of the State of Delaware and the public. The following code of ethics is subscribed to and affirmed as the foundation of Museums actions and its contributions to society. Museums comply with applicable local, state, and federal laws as well as with the specific legal standards governing its trust responsibilities. It is imperative that Museums staff are unequivocally loyal to Museums mission and the public it serves. This loyalty supersedes self-interest. No individual may use museums collections for private gain. Loyalty guides action in all conflict of interest situations.
- B. In subscribing to the American Association of Museums Code of Ethics, Delaware State Museums strengthens its chartered purpose, more prudently applies its resources, improves its effectiveness, and maintains public confidence. The collective effect of the Code strengthens museum work and enhances the contributions of museums to society.
- C. Employees are required to adhere to the following ethical standards.
 - 1. Acquisitions - In acquisitions, no employee (staff), committee member, volunteer or their immediate families may compete with the Museums in the acceptance or purchase of an object/artifact. However, they may own objects/artifacts of the same or similar nature as those collected by Museums.
 - 2. Disclosure - All employees, committee members, and volunteers disclose their interests and activities in collecting objects/artifacts. Their official Museums connection may not be used to enhance their own collecting activities. They may not deal, sell, or trade as for a for profit business in the types of objects Museums collects. Information is updated through annual evaluations.

3. Disposal - No employee, committee member, volunteer, or their immediate families may benefit from disposals from Museums collections. No object/artifact is acquired, directly or indirectly.
4. Personal Use - Use of collections resources must never accrue to private individual benefit. The temporary personal use of objects/artifacts by employees, committee members, volunteers, or their immediate families is prohibited. When used in public outreach programs, objects/artifacts must be used in an honest and objective manner.
5. Borrowing Objects - Museums should acknowledge the effect of exhibition and public presentation on the monetary value of privately owned objects and regulate the borrowing for exhibit of objects owned or created by employees, committee members, volunteers or their immediate families. Museums should borrow objects only when needed to enhance a public outreach program.
6. Appraisals - Employees will not appraise collections for Museums, for committee members, for other museums or private persons. Exception will be for insurance valuations on loan for internal purposes.
7. Use of Information - Current and former employees who created collections management, material culture, and archaeological documentation have the right to use the information for personal reasons, but Museums retains ownership. Permission for use for publication or educational purposes must be granted by Museums with proper credit given. Access is nondiscriminatory and fair in light of the range of requests received and balanced in light of resources, conservation and security concerns. Museums needs to protect privileged information including security information.
8. Moral Obligations - The employees, committee members, and volunteers should have moral obligations to improve Museums collections and documentation.

XI. COMPLIANCE TO THE COLLECTIONS MANAGEMENT POLICY

- A. Compliance to the Collections Management Policy is a professional obligation and staff responsibility. High standards of integrity, competence in training, and experience and dedication to assigned duties are expected of Museums staff. The Policy, implemented by its procedures, is the primary vehicle for internal controls over collections activities such as exhibits and interpretation.
- B. The Curators of Collections, Archaeology, and Registrations monitor compliance with the Collections Management Policy. They collaborate with the appropriate

staff and periodically review the Policy for effectiveness and flexibility. Policy improvements and revisions are recommended to the Administrator.

- C. The Collections Management Policy is reviewed and revised every three years, or as necessary.

DELAWARE STATE MUSEUMS INTERIM SAMPLING AND CURATION POLICY

Due to the fragile nature of archaeological remains and the inherent destruction of archaeological sites during excavation, it is the policy of the Delaware State Museums to maintain as comprehensive a collection from each excavated site as possible. Therefore archaeologists should follow these guidelines for sampling and collecting artifacts.

Artifact Collection and Retention

(Note: Non-diagnostic material includes fire-cracked rock, brick, coal, slag, shell, mortar, plaster, daub, shingle, roofing slate, and charcoal. All other material is considered diagnostic and 100% must be retained; this includes prehistoric flakes and historic gunflint fragments, all ceramics, all glass, all metallic artifacts, and all rubber and plastic artifacts. While many of these items are not necessarily subject to intensive analysis, they do at a minimum provide information on chronological relationships and range of function.)

General surface collection: collect a representative sample of the diagnostic, especially chronologically diagnostic material; collect only a small sample of non-diagnostic material.

Controlled surface collection: collect all material visible on the surface within the collection unit. Weigh and discard most of the non-diagnostic material; keep one or two representative pieces as a sample.

Plow zone tests (shovel tests or unit excavations): sift all material through 1/4" - mesh hardware cloth. Collect all material. Weigh and discard most of the non-diagnostic material; keep one or two representative pieces as a sample. Keep all brick fragments with finished sides that give measurable dimensions. Keep all righthand shell hinges.

Feature excavations: sift all material through 1/4" - mesh hardware cloth. Collect and keep all material. Certain kinds of materials cannot be removed entirely intact; measure and photograph (as appropriate) in situ and keep as large a sample of it as possible. Examples are sheet metal, charred wood, or charcoal greater than 1/4" square, and daub.

Ecological Sampling

All ecological samples (except charcoal or charred wood) are stored in a 3-mil ziplock bag,

labeled on the exterior with indelible black marker and on the interior with a mylar strip and black marker, giving full catalog number.

Soil samples: take a part of initial shovel testing, from base of plow zone or A horizon. Must be taken on prehistoric sites to establish suitability for residue tests. Take a large enough sample for 2 tests: one to analyze and one to curate.

Flotation samples: take from all appropriate strata. Fully process all samples; only results of fraction analysis will be curated.

Pollen, phytolith, and parasol samples: take as appropriate to the research design. Take a large enough sample for 2 tests: one to analyze and one to curate.

Archaeomagnetic samples: take as available and appropriate. Fully analyze all samples.

Wood and charcoal samples (for wood identification): save as much as possible of all fragments greater than 1/4" square from excavated contexts. Store in straight-sided, round glass container with Teflon cap, tightly sealed, with no crushing. Label container with catalog number.

Charcoal samples (for carbon-14 dating): save enough for 2 samples from excavated contexts. Analyze one and curate the other. Do not allow these samples to come in contact with paper or plastic or any other organic material. Store in straight-sided, round glass container with Teflon cap, tightly sealed, with no crushing. Label container with catalog number.

Standard Containers for Curation

All artifacts (except as noted above) are to be stored in a 3-mil archival plastic ziplocks labeled with the catalog number. The ziplock bags should be punctured to prevent water build up except for those bags containing metals. All diagnostic artifacts of sufficient size are also to be labeled with the catalog number, either directly on the artifact or on an attached tag of archival paper or plastic.

The ziplock bags are then to be placed in labeled archival boxes in these standard sizes:

- 2 1/2" x 3 1/4" x 3"
- 3 1/4" x 3 1/4" x 3"
- 9 1/2" x 3 1/4" x 3"
- 9 1/2" x 9 1/2" x 3"

These boxes are to be placed in 20" x 20" x 3" archival boxes with lids. A plastic label holder with a labeled card giving site number and provenience information must be affixed to the lid.

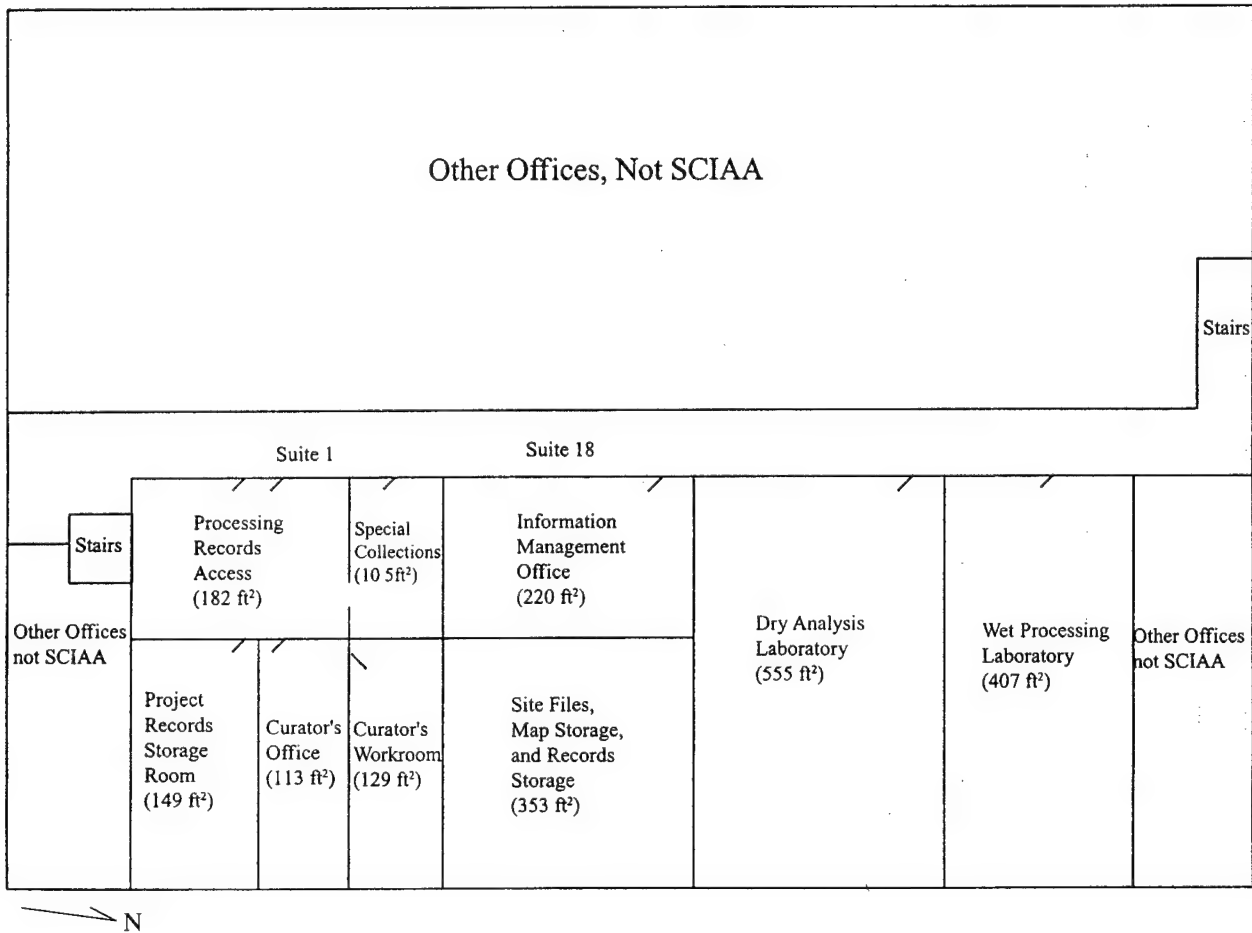
Artifacts that will not fit in the above size boxes are to be placed in an archival 1-cubic foot box with lid. A plastic label holder with a labeled card giving the site number and provenience information must be affixed to the lid.

For advice on where to obtain these boxes, call the Curator of Archaeology for the Delaware State Museums. Also consult the Curator if an unusually sized artifact is encountered that cannot be stored in one of the standard size boxes.

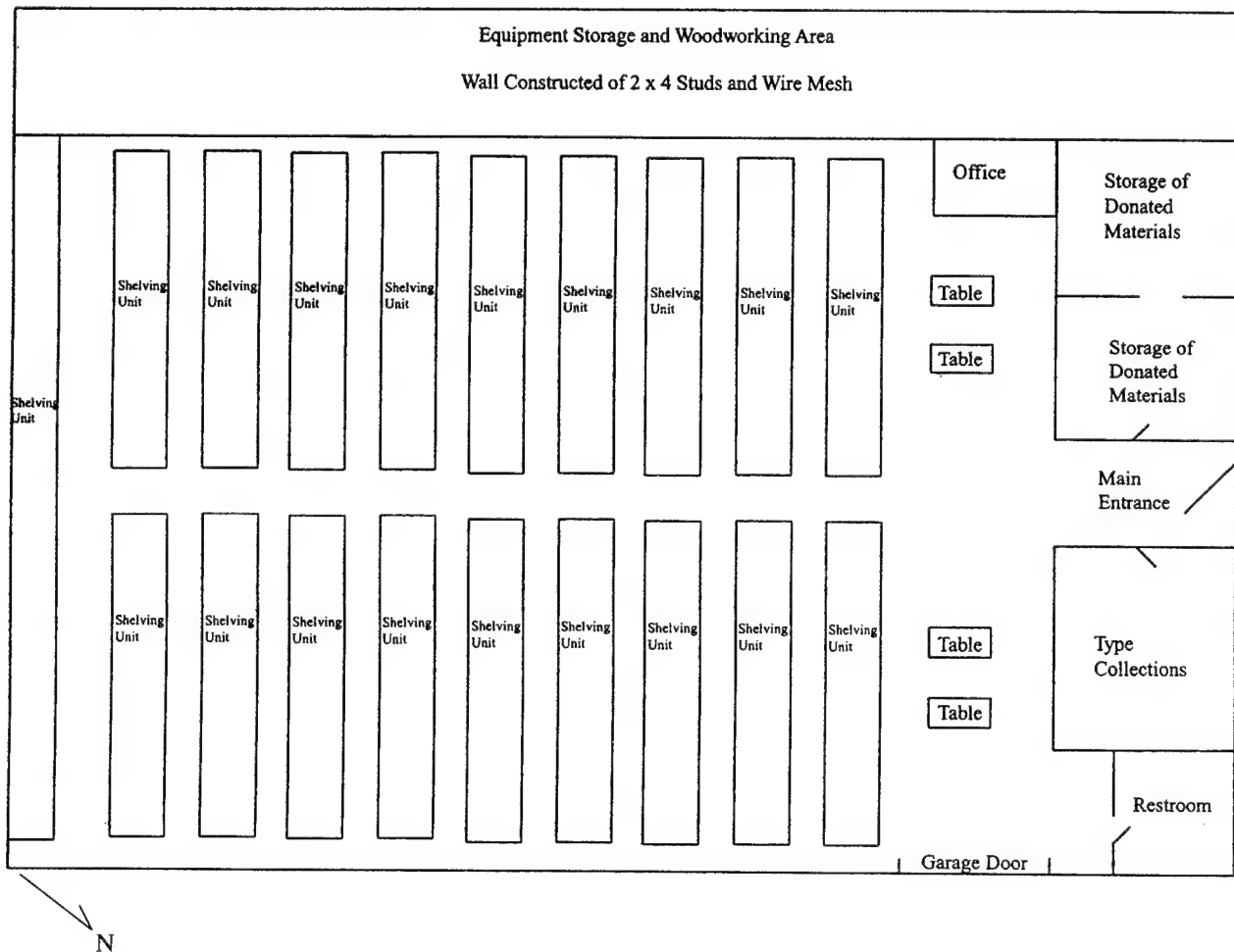
APPENDIX IV

REPOSITORY FLOOR PLANS

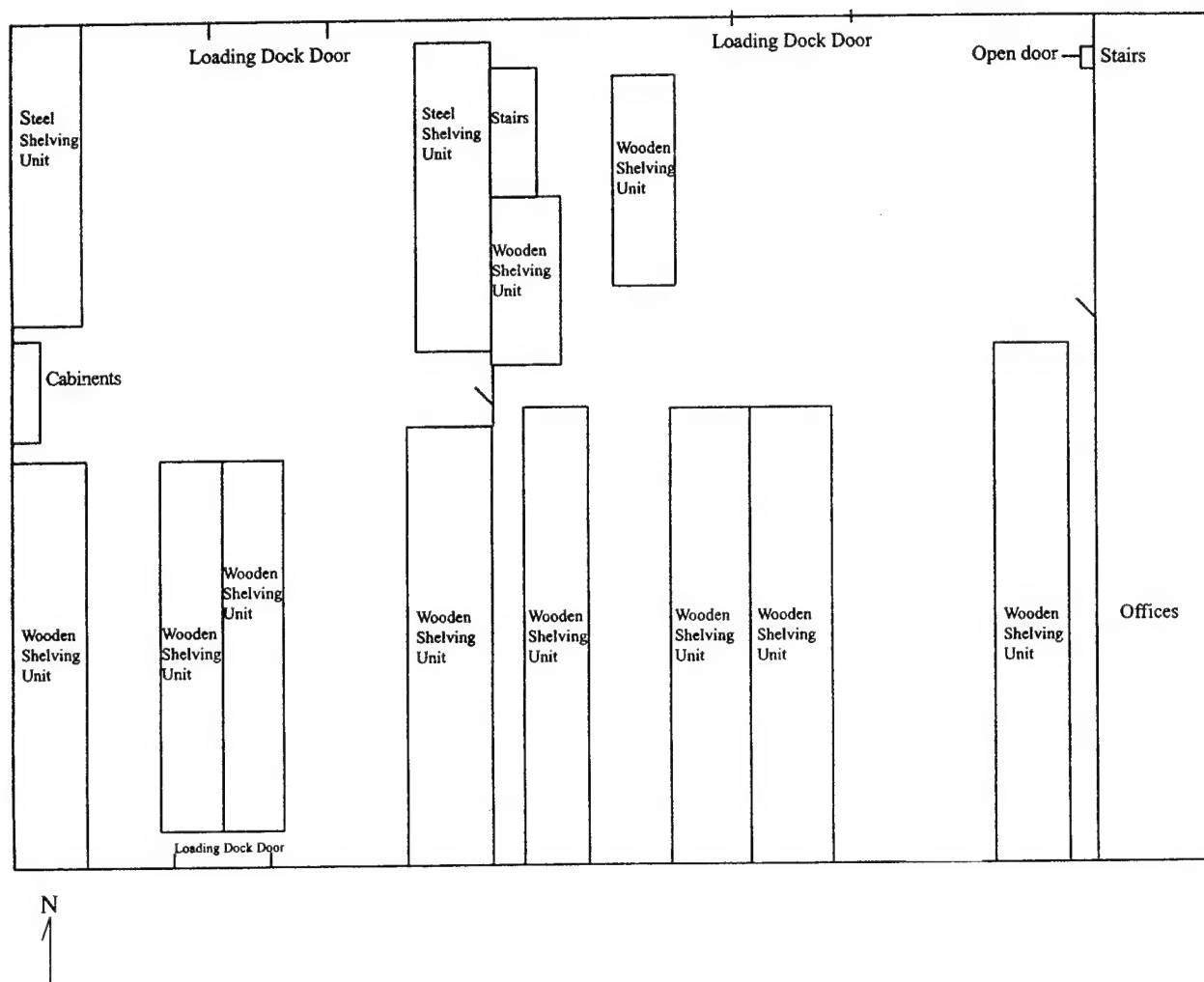
SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY PENDLETON STREET FACILITY



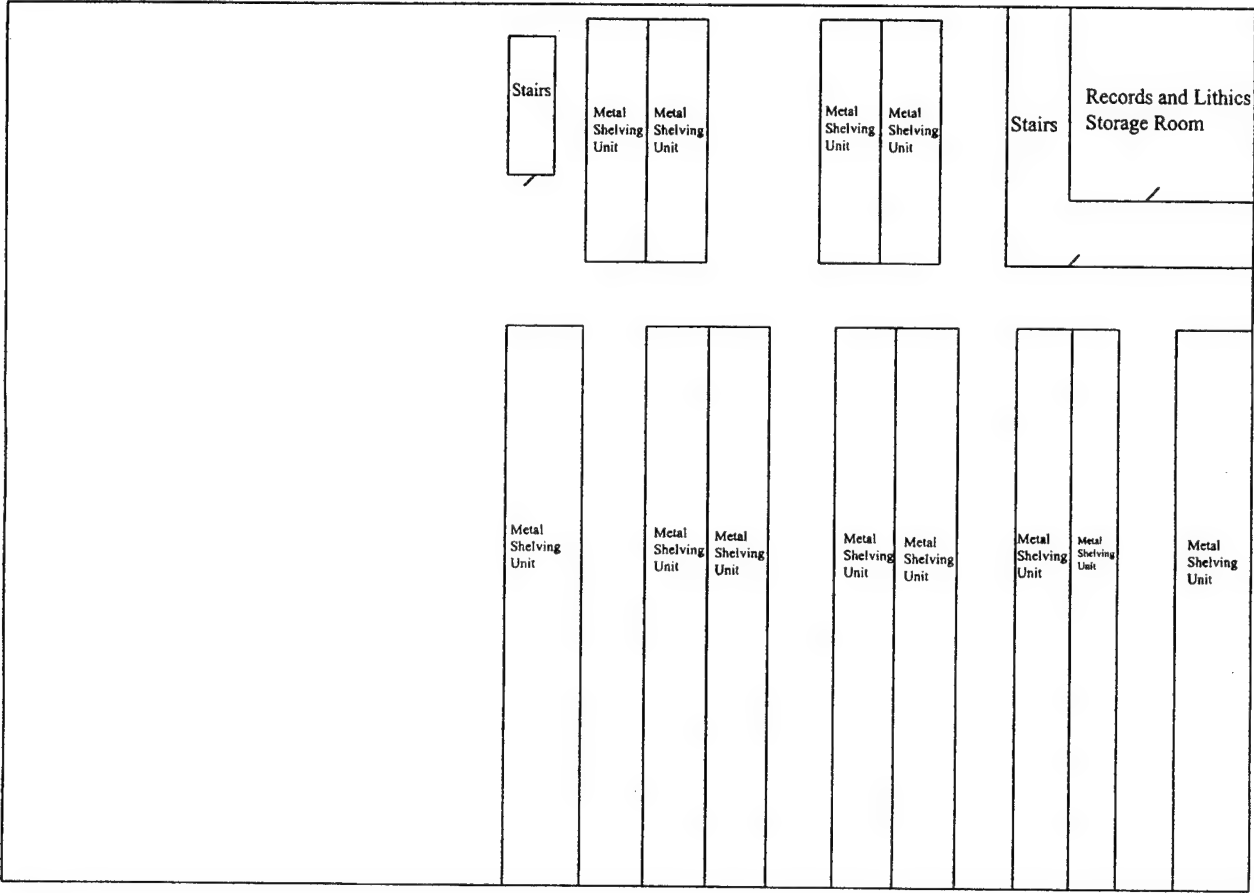
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INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY
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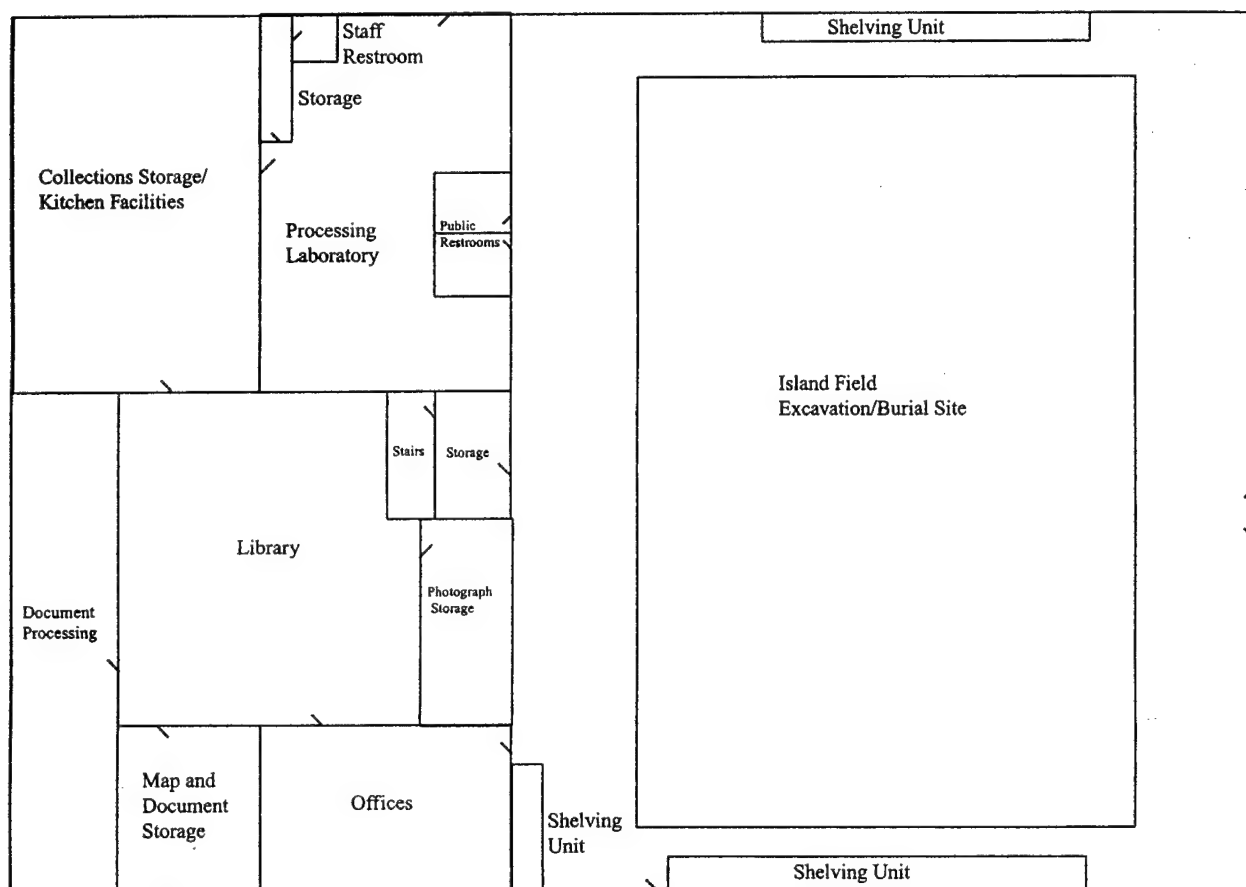
CENTER FOR ARCHAEOLOGICAL RESEARCH FIRST FLOOR



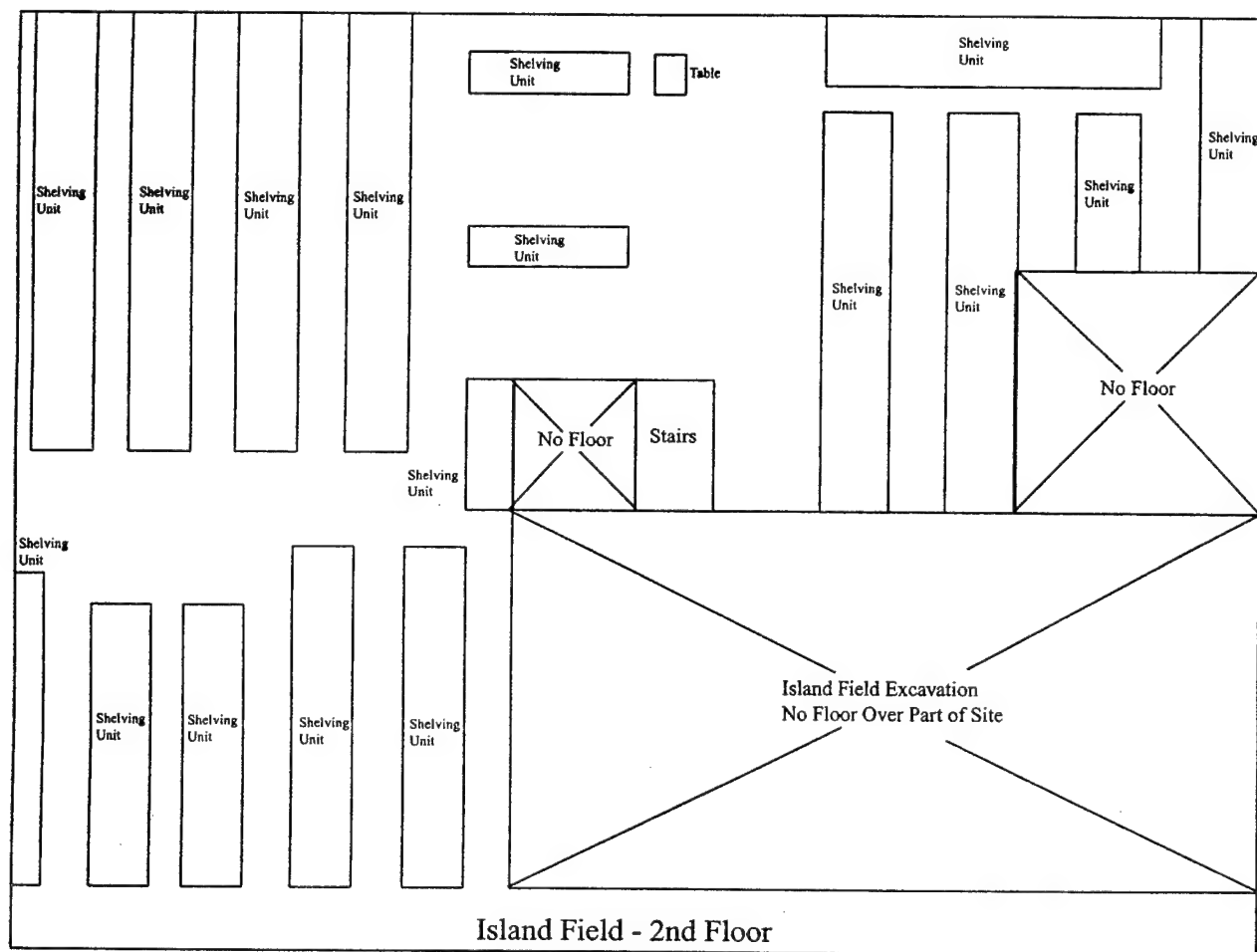
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SECOND FLOOR



ISLAND FIELD ARCHAEOLOGICAL RESEARCH CENTER FIRST FLOOR

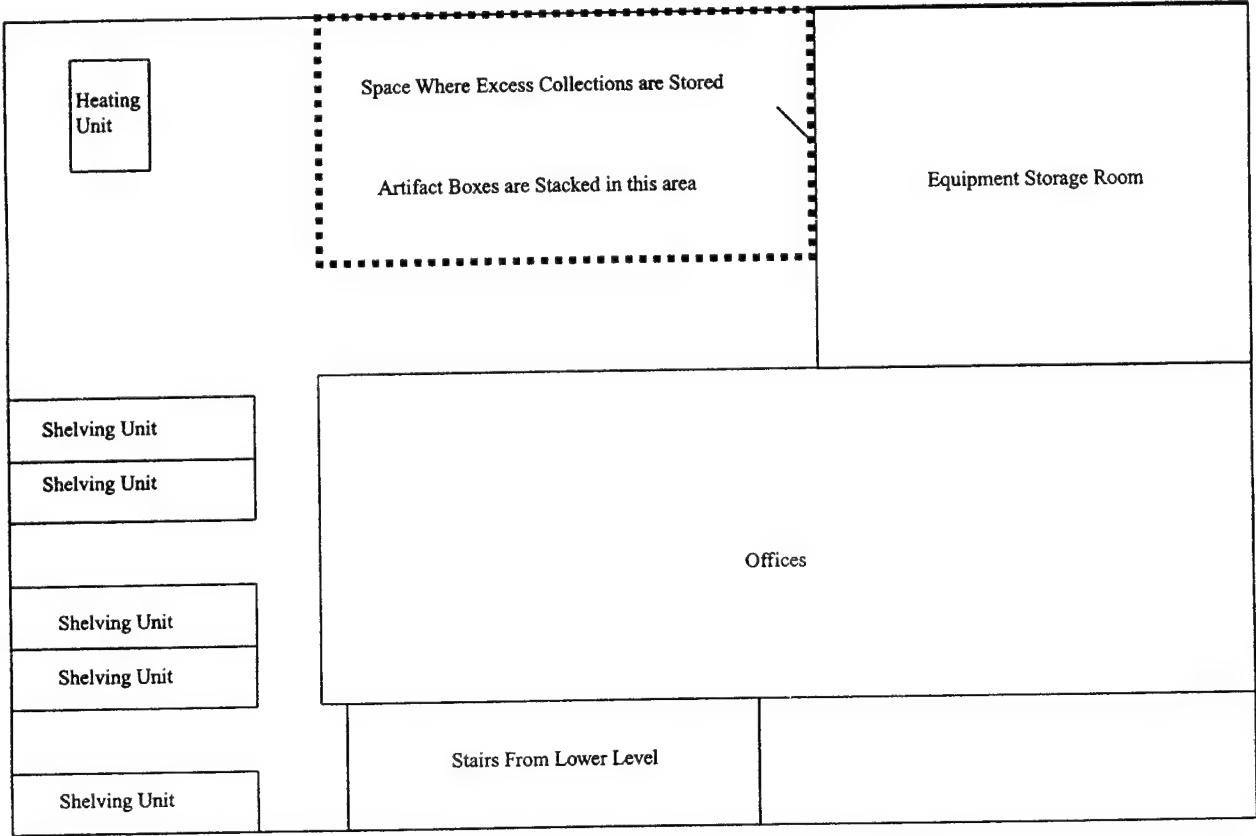


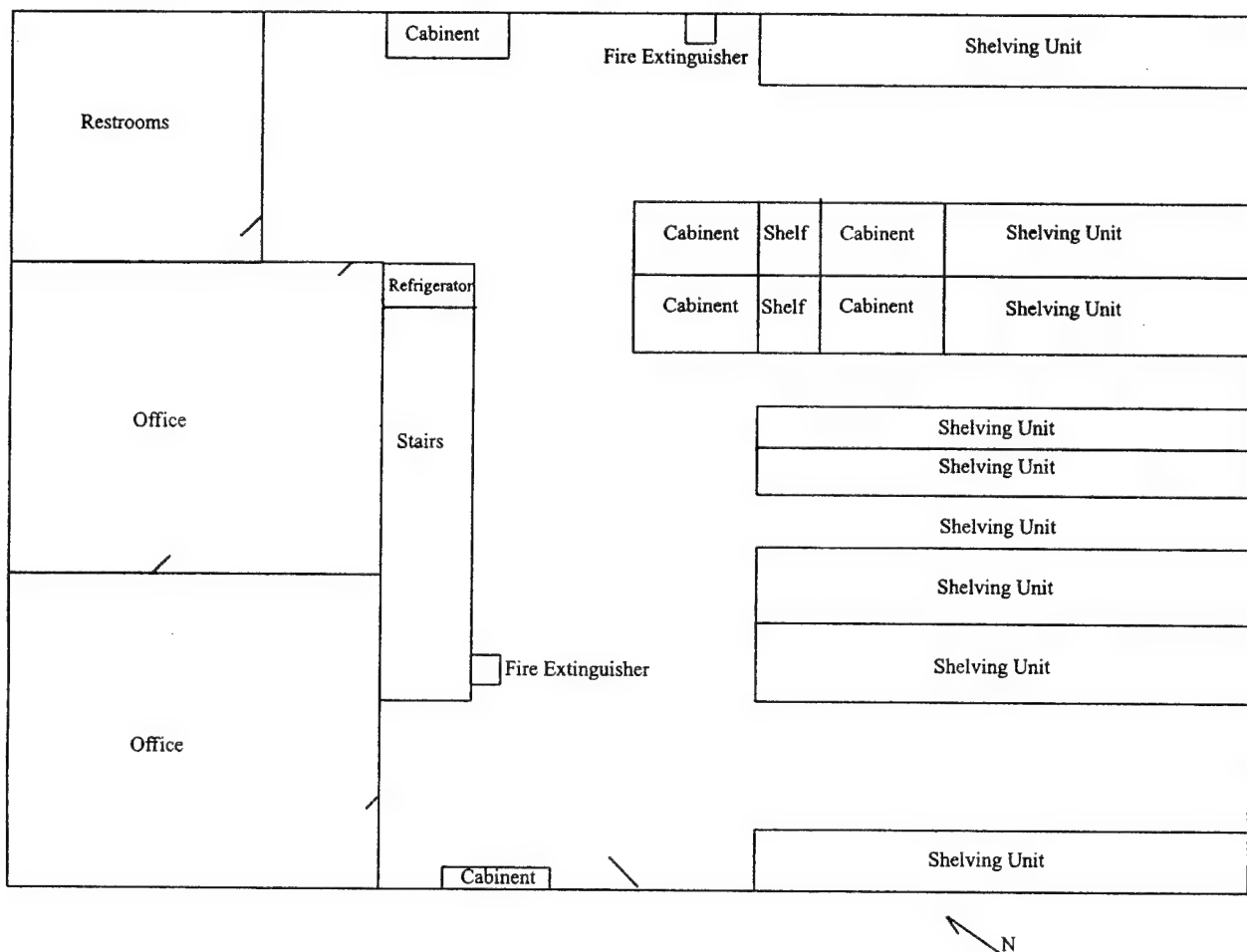
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ARCHAEOLOGICAL RESOURCE SERVICES
MEZZANINE LEVEL



SONOMA STATE UNIVERSITY

APPENDIX V

U.S. ARMY CORPS OF ENGINEERS ENGINEERING REGULATION 1130-2-433

Regulation
No. 1130-2-433

30 April 1991

Project Operations COLLECTIONS MANAGEMENT AND CURATION OF ARCHAEOLOGICAL AND HISTORICAL DATA

1. Purpose. This regulation provides general policy, procedures and standards for the curation and management of archaeological and historical collections.
2. Applicability. This regulation is applicable to all HQUSACE elements and USACE Commands including Major Subordinate Commands (MSC) and District Commands (DC) having Civil Works responsibilities. USACE requirements for the protection of historic properties in the Regulatory Program are found at 33 CFR Part 325, Appendix C. HQUSACE will issue a Regulatory Guidance Letter to clarify curation requirements in the Regulatory Program.
3. References.
 - a. Reservoir Salvage Act of 1960, as amended (P.L. 86-523; 74 Stat. 220; 16 U.S.C. 469).
 - b. National Historic Preservation Act of 1966, as amended (P.L. 93-291, 88 Stat. 174; 16 U.S.C. 469).
 - c. Archeological and Historical Preservation Act of 1973 (P.L. 93-291, 88 Stat. 174; 16 U.S.C. 469).
 - d. Archeological Resources Protection Act of 1979, as amended (P.L. 100-588; 102 Stat. 2983; 16 U.S.C. 470aa - 470mm).
 - e. Abandoned Shipwreck Act of 1987 (P.L. 100-298; 102 Stat. 432; 43 U.S.C. 2101).
 - f. Water Resources Development Act of 1986 (P.L. 99-662; 100 Stat. 4082).
 - g. 31 U.S.C. 3324.

This regulation supersedes ER 1130-2-433, 10 September 1984.

h. 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections.

i. ER 1105-2-100, Planning: Guidance for Conducting Civil Works Planning Studies.

j. ER 1130-2-418, Project Operation: Cooperative Agreements For Law Enforcement Services At Civil Works Water Resources Projects.

k. ER 1130-2-438, Project Construction and Operation: Historic Preservation Program.

l. ER 1165-2-131, Water Resources Policies and Authorities: Local Cooperation Agreements for New Start Construction Projects.

4. Definitions. For the purpose of this regulation, the following definitions are applicable. Refer also to definitions included in 36 CFR Part 79.

a. Associated Records - original records (or copies thereof) that are prepared or assembled and document efforts to locate, evaluate, record, study, preserve or recover materials from a prehistoric or historic resource. Some records such as field notes, artifact inventories and oral histories may be originals that are prepared as a result of the field work, analysis and report preparation. Other records such as deeds, survey plats, historical maps and diaries may be copies of original public or archival documents that are assembled and studied for historical research. Classes of associated records (and illustrative examples) that may be in a collection include, but are not limited to:

(1) Records relating to the identification, evaluation, documentation, study, preservation or recovery of a resource (such as site forms, field notes, drawings, maps, photographs, slides, negatives, films, video and audio cassette tapes, oral histories, artifact inventories, laboratory reports, computer cards and tapes, computer disks and diskettes, printouts of computerized data, manuscripts, reports, and accession catalog and inventory records);

(2) Records relating to the identification of a resource using remote sensing methods and equipment (such as satellite and aerial photography and imagery, side scan sonar, magnetometer, subbottom profiles, radar and fathometers);

(3) Public records essential to understanding the resource (such as deeds, survey plats, military and census records, birth, marriage, and death certificates, immigration and naturalization papers, tax forms and reports);

(4) Archival records essential to understanding the resource (such as historical maps, drawings and photographs, manuscripts, architectural and landscape plans, correspondence, diaries, ledgers, catalogs, and receipts); and

(5) Administrative records relating to the survey, excavation or other study of the resource (such as scopes of work, requests for proposals, research proposals, contracts,

antiquities permits, reports, documents relating to compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and National Register of Historic Places nomination and associated forms.

b. A collection - material remains and associated records. Specifically it refers to the composite of all material remains that are excavated or removed during a survey, excavation or other study of a prehistoric or historic resource, as well as the associated records that are prepared or assembled in connection with the study.

c. Collections Management and Curation - those curatorial services such as processing, cataloging, and accessioning, as well as application of specialized techniques necessary for conserving and maintaining collections. This includes but may not be limited to:

- (1) Inventorying, accessioning, labeling and cataloging a collection;
- (2) identifying, evaluating and documenting a collection;
- (3) handling, cleaning, stabilizing and conserving a collection in order to maintain and preserve its integrity;
- (4) storing and maintaining a collection using appropriate methods, containers, environmental conditions and physically secure controls;
- (5) routinely inspecting a collection and taking such actions as may be necessary to preserve it; and
- (6) providing access and facilities to study a collection.

d. Collections Management Center - any facility approved by the Corps under provisions of this regulation where material remains and their associated records are curated, maintained and made accessible for educational, interpretive, scientific, and ceremonial purposes.

e. Collections Management Professional - a person who possesses knowledge, experience, and demonstrable competence in collections management methods and techniques appropriate to the nature and content of the collections under the person's management and care. (Also see 36 CFR Part 79)

f. Initial processing - collections management functions and activities leading up to, and including the placement of a collection and its associated documentation into a management center. Such activities include, but are not limited to cleaning, sorting, stabilizing, packaging, cataloging, inventorying, accessioning, and the acquisition of all necessary supplies and materials.

g. Material remains - artifacts, objects, specimens, and other physical evidence that are excavated or removed in connection with efforts to locate, evaluate, document, study, preserve or

recover a prehistoric or historic resource. Classes of material remains (and illustrative examples as listed in 36 CFR Part 79) include, but are not limited to:

- (1) Components of structures and features;
- (2) intact or fragmentary artifacts;
- (3) intact or fragmentary natural objects used by humans;
- (4) by-products, waste products or debris resulting from the manufacture or use of man-made or natural materials;
- (5) organic materials;
- (6) human remains;
- (7) components of petroglyphs, pictographs, intaglios, or other works of artistic or symbolic representation;
- (8) components of shipwrecks;
- (9) environmental and chronometric specimens; and
- (10) paleontological specimens that are found in direct physical relationship with a prehistoric or historic resource.

5. Background. The recovery of archeological and historic data has generated vast amounts of material remains and associated records. These collections often comprise the only remaining evidence of past human lifeways and will become more valuable for future generations. Preservation of this cultural heritage requires that these recovered materials and their associated records be properly curated and managed. In past years, universities, museums, and other publicly and privately owned institutions have accepted storage and curatorial responsibilities for Federally-owned collections at no explicit cost to the Government. However, because of plant, personnel, and financial constraints, many institutions can no longer continue to accept these unfunded responsibilities. In 1981, the HQUSACE Office of Policy commissioned a study by the Institute for Water Resources to assess the extent and severity of curation problems within the Corps of Engineers. That study resulted in the identification of curation problems of a Corps-wide nature and suggested possible solutions for some of the problems. Based on the study, ER 1130-2-433 was issued on 10 September 1984. Subsequent developments, most notably publication of 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections, require this revision of ER 1130-2-433.

6. Policy. The Congress and the President, as expressed through various statutes and administrative actions, have declared that the protection and preservation of significant archeological and historic resources is in the broad public interest. In carrying out the provisions

of law and policy, the Corps investigates, evaluates, and recovers data and material from historic properties that could be impacted as a result of Civil Works undertakings. The historic preservation process does not conclude with the recovery and interpretation of archeological and historical data, but includes long-term curation and management of collections and associated documentation. Unless collections are accessible for scientific research and other appropriate uses, the resources themselves have not been properly managed. Accordingly, it is the policy of the Corps of Engineers that:

a. USACE Commanders shall be responsible for making all necessary arrangements to ensure that collections recovered in conjunction with Civil Works activities will be housed in a suitable curatorial repository under conditions appropriate to their continued preservation.

b. To insure the integrity of material remains and associated records, it is preferable to house collections from a given historic property at a single repository. However, due to such variables as research needs and limitations of space or funding, it may be appropriate to separate parts of collections and use multiple facilities. If a collection is separated, a complete collection catalog shall be maintained at each collections center.

c. Except as may be necessary under special circumstances, every effort shall be made to curate material remains and associated records within the State of origin.

d. Collections recovered under cost shared or multi-agency projects shall be managed in accordance with the standards and procedures in this regulation. Provisions for permanent collections management shall be incorporated in all multi-party agreements when collections have been or will be made. Material remains recovered from non-Corps lands are the property of the land owner, and unless otherwise specified, shall be restrained and managed by the land owner.

7. Securing Collections Management Services. USACE Commanders may secure collections management services using a variety of methods, subject to Federal procurement and property management statutes. USACE Commanders are advised that contractual arrangements providing for one-time, lump sum payments for long-term collections management are prohibited by 31 U.S.C. 3324. Methods that may be used by USACE Commanders include, but are not limited to:

a. Placing the collection in a collections management center that is owned, leased, or otherwise operated by the U.S. Army Corps of Engineers;

b. Using a purchase order or entering into a contract with a collections management center which meets the standards of this regulation. Normally such contracts or purchase orders should be of relatively short duration and should apply to initial processing or accessioning.

c. Entering into a Cooperative Agreement with a State, regional, local, or Native American tribal repository; a university, museum, or other scientific or educational institution that operates or manages a collections center meeting the standards of this regulation.

(1) Cooperative Agreements outline the conditions, duties and responsibilities of all parties for long-term curation and management of collections. These agreements should include preambles, appropriate articles, signature blocks for the USACE Commander and Cooperator(s), and any attachments or appendices. Sample formats may be found in Appendix A of reference 3j.

(2) Cooperative Agreements shall always contain an article entitled Obligations of the Cooperator. This shall detail the collections management services to be provided by the Cooperator.

(3) Cooperative Agreements shall always contain a subsequent article entitled Obligations of the Government. This article shall include the following statement:

“Subject to the availability of funds, the Corps agrees to pay the Cooperator for the total cost of collections management and curation services to be provided in accordance with the obligations agreed to be undertaken by the Cooperator in Article _____, including the applicable costs of operation and maintenance of such facilities and equipment as are required for the provision of such Cooperator services. At the request of the Cooperator, partial payments may be made as the curation and collections management services are performed based on a billings schedule identified in this Agreement and approved by the Corps.”

d. Entering into an interagency agreement with another Federal agency or intra-agency agreement with another USACE Command for collections management services.

e. Transferring collections to another Federal agency for management, in compliance with the management requirements of 36 CFR Part 79.

8. Procedures for the Assessment and Evaluation of Existing Collections.

a. The USACE Commander shall conduct an assessment of existing collections that are owned or controlled by the Corps of Engineers. Although the conduct of these investigations may vary between USACE Commands, the following procedures shall be initiated:

(1) All collections and records which were generated by a Corps undertaking and/or removed from Corps project lands shall be identified.

(2) The collections management center where each collection is housed shall be identified. If a collection has been divided, all collections centers, institutions, tribal groups, and/or individuals that retain any portion of the collection shall be identified. When appropriate, collections shall be coalesced.

(3) If a collection or portion of a collection is on loan from the collections management center, the borrowing institution or individuals, the specific loan items, and terms of the loans shall be identified.

(4) If a collection is determined to be missing in whole or in part, with no account of its whereabouts, the assessment and subsequent report shall estimate what materials are missing.

b. A report containing the assessment findings and a description of the condition of each collection shall be made. Information categories should include, but are not limited to:

(1) The quantity, preservation condition, and cultural affiliation, of all material, including human skeletal remains.;

(2) the condition of all associated records;

(3) the degree to which a collection has been prepared, cataloged, treated, accessioned, and stored;

(4) the physical state of the collection;

(5) a list of all reports and articles generated by the analysis of the collection and its associated records; and

(6) an estimate for each collection specifying the funding and time necessary to attain the collection standards contained in this regulation.

c. The questionnaire in Appendix A of this regulation should be used to collect the information on existing collections.

9. Standards for Processing and Placing Collections Into Collections Management Centers. The following are standards for the processing, management, and curation of all collections recovered by the Corps of Engineers. The goal of these standards is to ensure that collections will be properly processed, documented, and managed. The standards have been divided into two major categories: material remains and associated records.

a. When a collection is turned over to a collections management center, an inventory shall accompany the material remains and associated records. The form and content of the inventories may vary between the USACE Commands, however, Appendix B provides sample formats for various types of material remains and records inventories.

b. Material remains.

(1) Material remains should be cleaned, stabilized, or conserved as appropriate so as not to preclude specialized analysis.

(2) Material remains shall be cataloged and labeled with the State or Smithsonian-type site numbers and provenience. Items can be grouped by material type, placed in bags with the exterior permanently labeled, and a mylar strip or acid-free paper label with the appropriate provenience information placed within the bag.

(3) In most cases, material remains shall be stored in perforated polyethylene, zip-lock type plastic bags at least 2 millimeters in thickness. Non-acidic or curatorial quality cloth bags are an acceptable alternative, provided they can be securely closed and labeled with the appropriate information, including provenience. For those items requiring special packaging, archivally stable materials shall be used.

(4) All material remains shall be placed in appropriate storage specified by the collections management center. All artifacts shall be housed by material class, artifact type and provenience when possible.

(5) Each box shall contain an inventory listing of its contents keyed to a master inventory of the collection which shall be filed with the collection records.

(6) All artifact storage boxes shall have a label conforming to the specifications of the collections management center. It is required that each box have a clear invoice label holder which protects the box label. Each label or box shall be identified with "U.S. Army Corps of Engineers."

c. Associated Records.

(1) Two copies of a project's final report shall accompany each collection. It is recommended that these copies be produced on acid-free paper.

(2) A duplicate set of all field documentation and laboratory analysis shall be produced. One set, on acid-free paper, shall be submitted to the collections management center. These two sets of documentation shall be stored at separate locations within the designated collections management centers.

(3) All pertinent maps used and generated by an archeological project shall accompany each collection. This includes, but may not be limited to, USGS maps, regional and project area maps, survey and excavation maps, collection grid maps, and excavation unit profiles. An inventory of all maps and profiles shall accompany the collection.

(4) Archival and working sets of slides and prints shall be produced for each collection. All photographic materials shall be stored in archivally stable containers or other appropriate method specified by the collections management center.

(5) When appropriate, the collection shall be accompanied by, and inventories shall include:

(a) A catalog of computer tapes, disks, diskettes, and any other automated data processing materials.

(b) A list of conserved material remains and associated records with a description of conservation treatments. The list shall also indicate which objects require future conservation treatment.

(c) A photograph catalog. Photographic materials should be organized by film type (e.g. roll film, sheet film, 35 mm. slides, prints, video media) and in chronological sequence.

10. Standards for Collections Management Centers. To ensure that material remains and associated records are preserved in a manner facilitating their future use by the public and scientific researchers, the USACE Commander shall ensure that all collections and records are curated at collections management centers which conform to the standards outlined below:

a. Accession, label, catalog, store, maintain, inventory and conserve collections on a long-term basis using professional archival practices and maintain complete and accurate records of the collection, including but not limited to:

- (1) Records on acquisitions;
- (2) catalog and artifact inventory lists;
- (3) descriptive information, including field notes, site forms and reports;
- (4) photographs, negatives, slides, video tapes, audio tapes, computer tapes, disks, diskettes;
- (5) locational information, including maps;
- (6) information on the condition of the collection, including any conservation treatments;
- (7) approved loans and other uses;
- (8) inventory and inspection records, including any environmental monitoring records;
- (9) records on lost, deteriorated, damaged or destroyed property; and
- (10) records on any deaccessions and subsequent transfers, repatriations or discards, as approved by the Government.

b. Dedicate the requisite facilities, equipment and space in the physical plant to properly store, study and conserve the collection.

c. Keep the collection under physically secure conditions within storage, laboratory, study and any exhibition areas by:

- (1) Having a physical plant meeting appropriate electrical, fire, building, health and safety codes;
- (2) having an appropriate and operational fire detection and suppression system;

- (3) having an appropriate and operational intrusion detection and deterrent system;
 - (4) having an appropriate emergency management plan;
 - (5) providing additional security for fragile or extremely valuable collections;
 - (6) limiting and controlling access to keys, the collection and the physical plant;
 - (7) inspecting the physical plant for possible security weaknesses, environmental or pest control problems, and taking necessary actions to maintain the integrity of the collection.
- d. Require staff and any consultants who are responsible for managing and preserving the collection to be qualified collections professionals.
- e. Handle, store, clean, conserve and if exhibited, exhibit the collection in a manner that:
- (1) Is appropriate to the nature of the material remains and associated records;
 - (2) Protects it from breakage and possible deterioration from adverse temperature and humidity, visible light, ultraviolet radiation, dust, soot, gases, mold, fungus, insects, rodents and general neglect; and
 - (3) Preserves data that may be studied in future laboratory analyses.
- f. Store site forms, field notes, artifact inventory lists, computer disks and tapes, catalog forms and a copy of the final report in a manner that will protect them from theft, fire or other damage such as:
- (1) Storing the records in an appropriate insulated, fire resistant location; or
 - (2) Storing a duplicate set of records in a separate location.
- g. Inspect the collection for possible deterioration and damage, and perform those actions as are necessary to stabilize the collection and rid it of any agents of deterioration.
- h. Conduct inventories to verify the location of the material remains, associated records and any other property that is furnished to the collections center by USACE Commanders.
- I. Provide access to the collection by qualified researchers whose proposals have been approved by USACE Commanders.

11. Procedures for Collections Users. The USACE Commander shall ensure that collections are available for scientific and educational uses by qualified professionals, including access for study, loan and use of such purposes as in-house and traveling exhibits, teaching, public interpretation, scientific analysis and scholarly research. At the discretion of the USACE

Commander, collections may also be loaned for religious uses by interested groups with a demonstrated affiliation to the materials in the collection.

a. Collection use is subject to such terms as are necessary to protect and preserve the condition, integrity and research potential of the collection. Collections users granted access to a collection shall be required to adhere to all rules established by the collections management center to protect the collection.

b. To gain access to a collection, or to arrange for the loan of a collection, users shall be required to submit a written request. The request should give the user's qualifications, state user objectives, proposed methods of use, and identify those materials or portions of the collections to be requested. The USACE Commander will evaluate the request and determine whether access will be allowed.

c. No collection (or a part thereof) shall be loaned to any person, institution or religious group without a written agreement between the collections management center and the borrower that specifies the terms and conditions of the loan. The agreement shall be subject to approval by the USACE Commander. The loan agreement shall specify the material being loaned, the purpose of the loan, the length of the loan, the security and environmental provisions for materials during the period of the loan, and any restriction on scientific, educational or religious uses, including whether any object may be altered, damaged or destroyed.

d. Any exhibits or publications resulting from use of Government controlled collections shall acknowledge the collections center as the repository of the collection and the U.S. Army Corps of Engineers as the collection owner or administrator, as appropriate.

e. In accordance with Section 9 of the Archaeological Resources Protection Act (16 U.S.C. 470 hh) and Section 304 of the National Historic Preservation Act (16 U.S.C. 470 w-3), the USACE Commander shall restrict access to associated records that contain information relating to the nature, location or character of a prehistoric or historic resource unless the USACE Commander determines that such disclosure would not create a risk of harm, theft or destruction to the resource or to the area or place where the resource is located.

12. Reports and Inspections.

a. Annual reports shall be required of all collections management centers for updating the status of respective collections. Details required in the reports may vary at the discretion of USACE Commanders, depending upon the nature of the collections. The report should include:

(1) Any changes made to the collections management center.

(2) Any changes, additions, or alterations of the material remains or to associated records (including loans).

(3) Problem areas.

(4) Names and purposes of individuals or organizations having access to the collections in the previous year.

(5) Citations of any reports, manuscripts, theses, or dissertations resulting from use of the collections.

b. Reports resulting from completion of the existing collections assessments required in Section 8b of this regulation shall be submitted by the DC through the MSC to CDR USACE ATTN: CECW-P no later than four (4) years from the publication date of this regulation. Those reports will be used by the appropriate USACE Command as the basis for determining cost estimates for subsequent budgetary preparations.

c. USACE Commanders shall conduct an on-site inspection of collections management centers at least once every three years. Inspections may be conducted more frequently if deemed necessary to assure maintenance of management standards.

d. Annual reports prepared by collections management centers and all inspection reports prepared by the DC shall be submitted for information purposes to the MSC.

13. Funding, Cost Apportionment and Accountability.

a. Line item cost estimates for collections management and curation shall be included in all cost estimates prepared for investigations that will result in collection of material remains and associated records.

b. For Civil Works planning studies identified in reference 3i the following cost apportionment and accountability applies:

(1) Costs incurred for collections management and curation during the Reconnaissance phase shall be at full Federal expense. These costs are not included in the one percent limitation specified in Public Law 93-291 (see reference 3c).

(2) Costs incurred for collections management and curation associated with identification, survey, and evaluation activities during the Feasibility phase shall be shared with the non-Federal sponsor consistent with other Feasibility costs. Collections management and curation costs associated with identification, survey, and evaluation activities during or following Preconstruction, Engineering, and Design (PER) studies shall be shared with non-Federal sponsor in accordance with the cost sharing required for project construction consistent with other PER costs. These costs are not included in the one percent limitation specified in Public Law 93-291 (see reference 3c).

(3) Costs incurred for collections management curation associated with mitigation and data recovery are non-reimbursable Federal costs when they contribute to the one percent limitation specified in Public Law 93-291 (see reference 3c). When collections management and other mitigation and data recovery costs exceed the one percent limitation, a waiver will be

sought in accordance with provisions in reference 3i. Once a waiver is obtained, collections management and curation costs exceeding the one percent will be apportioned on the same basis as other joint and separable costs.

(4) Feasibility Reports shall assign all costs of collections management and curation associated with mitigation and data recovery activities to the Federal government, up to the one percent limitation specified in Public Law 93-291 (see reference 3c). The Feasibility Report shall recommend, as an item of local cooperation, that expenditures over the one percent limitation shall be apportioned on the same basis as other joint and separable costs.

c. In accordance with Project Management regulations, any changes to schedules and/or budgets developed in the Cultural Resources Plan of the Project Management Plan shall be coordinated with the Project Manager for appropriate action.

d. Costs for collections management and curation associated with all Federal historic preservation activities at water resources development projects operated and maintained by the Corps of Engineers are full Federal costs and do not apply to the one percent limitation specified in Public Law 93-291 (see reference 3c). Funding requests shall be included as part of the Operation and Maintenance budget submittal for each fiscal year.

e. Costs for collections management and curation associated with existing collections recovered from non-Corps or previously owned Corps lands, but retained under Corps control, are a full Federal expense.

FOR THE COMMANDER:

2 Appendices
App A - Assessment Questionnaire
for Existing Corps Collections
App B - Sample Formats for Corps
Collections Inventory

ROBERT L. HERNDON
Colonel, Corps of Engineers
Chief of Staff

APPENDIX A

ASSESSMENT QUESTIONNAIRE FOR EXISTING CORPS COLLECTIONS

General Repository Report

1. Does the repository have written minimum standards for the acceptance of archeological collections? (If yes, describe or attach copy).
2. Does the repository have a comprehensive plan for curation and collections management? (If yes, describe or attach copy).
3. Does this plan address:

Receipt of materials?
Processing of materials?
Use of materials?
Future preservation?
4. Is there a master catalog for collections?
5. Are the files cross-indexed?
6. Is the location of the collection within the repository identified in the accession file?
7. Has this information been kept up-to-date?
8. Are all collections accessioned upon receipt?
9. Does the repository maintain a file of documented property receipts?
10. Is there a registration record and/or a copy of the initial inventory?
11. Are there established procedures for periodic inventory? (If yes, describe or attach a copy)
12. When were the collections last inventoried?
13. Are collections from individual sites stored as a unit? (If no, describe procedure.)
14. Are collections from the same region stored together? (If no, describe procedure.)
15. Are collections and documentation readily accessible? (If no, explain.)

16. Is storage space adequate for housing the collections? (If no, describe storage conditions.)
17. How much space is devoted to storage?
18. What are the anticipated storage and handling requirements to adequately maintain collections for the next twenty years?
19. Is access to collections controlled by curatorial personnel?
20. Do others have access to the collections? (If yes, describe.)
21. Describe the repository's policy regarding access to collection by researchers.
22. Has the repository ever been the victim of a security failure? (If yes, describe.)
23. What are the loan procedures for collections?
24. Does the repository use automated data processing techniques to manage its collections? (If yes, describe.)
25. Does the repository publish a list of the collections it maintains?
26. Does the repository publish field curation guidelines for researchers depositing collections? (If yes, describe or attach copy.)
27. Is there a deaccessioning policy? (If yes, please describe or attach copy.)
28. Does the catalog identify those artifacts or parts of artifacts that have been destroyed through analysis (e.g. C14 or neutron activation)?
29. Is there a system of site record administration? (If yes, how is it organized?)
30. Are there cooperative agreements with other institutions to standardize registration and cataloging procedures? (If yes, describe.)
31. Is there a full time professional curatorial staff?
32. How large is the staff?
33. Describe their formal collections management training.
34. What are their primary responsibilities?
35. Describe any definite plans for the upgrading of the curation program.

Material Remains Collections: General Report

1. Are there written guidelines and standards for the curation of material remains? (If yes, describe or attach copy.)
2. Are any material remains systematically excluded from curation?
3. Environmental Conditions:

Light:

Temperature:

Humidity:

Dust:

Biological Infestation:

Infestation Control:
4. Are environmental conditions monitored?
5. What is the primary means of storage:

Boxes?

Drawers?

Other?
6. If drawer storage, are measures taken to prevent artifact contact?
7. Is storage space maximized by excessive stacking of objects and boxes?

Material Remains Collections: Human Skeletal Report

1. Are human skeletal remains included in this collection?
2. Have they been:
 - Cleaned?
 - Stabilized?
 - Permanently labeled?
 - Analyzed?
3. What type of containers are remains stored in?
4. Are containers labeled and readily identifiable?
5. Are all remains accounted for?
6. Are any materials in museum displays?
7. Are remains stored under stable temperature and humidity conditions?
8. Have all burial forms, photographs, and other documentary materials been preserved?
9. Is the documentary material readily available?

Material Remains Collections:
Lithics, Ceramics, and Faunal Report

1. Are artifacts and/or faunal remains included in this collection?
2. Have they been:
 - Cleaned?
 - Permanently labeled?
 - Stabilized?
 - Analyzed?
3. Has an unwashed sample been preserved for future analysis of residues?
4. What type of containers are they stored in?
5. Are containers labeled and readily identifiable?
6. Are all items accounted for?
7. Are any materials in museum displays?
8. Have all associated records been preserved?
9. Are all associated records readily available?
10. Are all faunal remains stored under stable temperature and humidity conditions?

Associated Records Documentation: General Information Report

1. Are there written guidelines and standards for the curation of paper records, photographs, slides, video materials, computer generated documentation and maps? (If yes, describe or attach copy.)
2. Is there adequate space for document storage?
3. Are any documents systematically excluded from curation?
4. Are duplicates of the original documentation maintained separately? If so, where? Photocopy or microfilm?
5. Are documents secure from loss due to fire, water damage, theft?
6. Are documents legible and reproducible?
7. Describe all security deficiencies.
8. Who is responsible for record maintenance and security?
9. Who has access to the records?

Associated Records Documentation: General Information Report

1. Are there written guidelines and standards for the curation of paper records, photographs, slides, video materials, computer generated documentation and maps? (If yes, describe or attach copy.)
2. Is there adequate space for document storage?
3. Are any documents systematically excluded from curation?
4. Are duplicates of the original documentation maintained separately? If so, where? Photocopy or microfilm?
5. Are documents secure from loss due to fire, water damage, theft?
6. Are documents legible and reproducible?
7. Describe all security deficiencies.
8. Who is responsible for record maintenance and security?
9. Who has access to the records?

Associated Records Documentation: Paper Records Report

1. Type: Contracts

Proposals _____
Field Notebooks _____
Laboratory Records _____
Fiscal Data _____
Official Correspondence _____
Reports _____
Expert Analysis _____
News Clippings _____
Site Forms _____
Feature Forms _____
Artifact Forms _____
Photo Forms _____
Photo Log _____
Burial Forms _____
Other _____

2. How are these records managed?

3. Environmental Conditions:

Light:
Temperature:
Humidity:
Dust:
Biological Infestation:
Infestation Control:

4. Are environmental conditions monitored?

5. What is the present condition of this material?

6. Is there a check-out system for records?

7. Have any records been lost?

Associated Records Documentation: Photographs and Slides Report

1. Type: Black/White _____
 Color _____
 Aerial _____
 Slide _____
 Negatives _____
 Log _____
2. Environmental Conditions:
 Light:
 Temperature:
 Humidity:
 Dust:
 Biological Infestation:
 Infestation Control:
3. How are photographs managed?
4. How are slides managed?
5. How are negatives managed?
6. Are environmental conditions monitored?
7. What is the present condition of this material?

 Fading?

 Damaged?

 Lost Material?
8. Are they stored with other documentation?

Associated Records Documentation: Maps and Drawings Reports

1. Type: USGS _____
 Field _____
 Contour _____
 Site Plot _____
 Feature _____
 Computer Symap _____
 Floor Plans _____
 Sketches _____
 Drawings _____

2. Storage: Rolloed _____ In tubes? _____
 Folded _____
 Flat _____

3. Environmental Conditions:
 Light:
 Temperature:
 Humidity:
 Dust:
 Biological Infestation:
 Infestation Control:

4. Are environmental conditions monitored?

APPENDIX B

SAMPLE FORMATS FOR CORPS COLLECTIONS INVENTORY

REND LAKE
1990 SURVEY COLLECTIONS PROGRAM
SPECIMEN INVENTORY
COLLECTION 12345

Lot #	Former Lot #	Site #	Investigation Phase	Main Horz. Prov.	Main Vert. Prov.	Secondary Vert. Prov.	Category	Box	Location
1	64	23sg5	Survey	N40E80	Level A	0-10	Lithics	1	E6B.4
2	6	23sg5	Survey				Lithics + Ceramics	1	E6B.4
3	7	23sg5	Survey	N140E220	Level C	20-30	Lithics/ Historic	2	E6C.1
4	9	23sg6	Survey	Shovel Test		0-40	Ceramics	3	E6C.2
5	10	23sg9	Survey		Gen. Surface		Lithics	3	E6C.3
6	33	23sg10	Survey	N120E60	Surface		Lithics + Ceramics	6	E5B.1
7	66	23sg11	Survey		Level A	10-13	Bone	7	E5B.2

REND LAKE
BOOTSTRAP MOUND
RECORD INVENTORY
COLLECTION 6789

First Subject Division	Folder	Site #	Second Subject Division	Third Subject Division	Fourth Subject Division	Storage Location	Reel #
Adm. Records	1		Job Applications	1980-1982		ML6.24	MR37
Adm. Records	2		Radiocarbon Dating	Correspondence	1980	ML6.24	MR37
Background Records	3		Soil Survey Maps	Monroe Co.	1974-1979	ML6.25	MR38
Background Records	4		Procedure for Analysis	Chipped Stone	1975	ML6.26	MR39
Survey Records	5	23MN 225-259	Site Survey Forms	Prehistoric	1966-1977	ML6.29	MR42
Survey Records	6	23MN 339	Transit Records		1974	ML6.33	MR49
Excavation Records	7	23MN 340	Excavation Forms	Historic	1977	ML6.39	MR52
Excavation Records	8	23MN	Lot Control #'s	# 1-70	1977	ML6.88	MR57
Excavation Records	9	23MN 500	Mound Plans and Profiles	# 1-25	1980	ML6.89	MR59
Oversize Maps and Drawings	10		Bootstrap Mound Complex	Site Plan Map	1981	ML6.89	MR62
Oversize Maps and Drawings	11		Bootstrap Mound Complex	Mound Plans + Profiles	1972-1979	ML6.82	MR60

REND LAKE
1986 SURVEY
NEGATIVE INDEX
COLLECTION 6789

Neg. # Location	Prior #	Format	Film Type	Site	First Subject Division	Second Subject Division	Date Taken	Storage
1	r2-f3	35	Plus-X House	23sg5,	Builders Trench	Looking N.	7/11/86	PA11.1
2	r2-f6	35	Plus-X	23sg6	Reference Shot		6/2/86	PA11.23
3	r2-f37	35	Plus-X Mound	23sg6,	Before Excavation	Looking SE	8/11/86	PA11.24
4	r6-f6	35	Plus-X Village	23sg7,	Test Pit 1	East Profile	6/6/86	PA11.25
5	r9-f2	35	Plus-X	23sg8	Before Excavation	Looking NNE	7/15/86	PA11.25
6	r9-f14	35	Plus-X	23sg8	Chester	Screening	7/15/86	PA11.25
7	r11-f1	35	Plus-X	23sg9	Recent Pothole	NW Profile	7/18/86	PA11.28

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT
COLLECTIONS INVENTORY
CONTROL SHEET

Slide Accession Inventory # Date	Register Status	Register Date	Specimen Inventory Status	Specimen Inventory Date	Record Inventory Status	Record Inventory Date	Negative Inventory Status	Negative Inventory Date	Slide Inventory Status
A981.1	Final	3/18/87	Compiled	3/31/87	Final	4/2/87	None	4/2/87	
A981.2 11/22/87	Final	4/2/87	Printed	4/1/87	Final	4/16/87			Final
A982.1 12/16/87	Final	5/9/87	Final	9/15/87	None	9/30/87			None
A982.2 8/8/86	Final	7/9/88	Final	6/10/86	Final	7/6/86	Final	8/8/86	None
A983.3 9/15/87	Final	10/11/89	Corrected	7/11/87	None	8/12/87	None	9/15/87	Compiled
A984.1	Final	12/6/89	None	3/30/87	None	4/17/87	Compiled	11/24/87	
A984.2	Final	1/14/90	Final	3/30/87	Final	5/5/87		11/26/87	

APPENDIX VI

LIST OF SUPPLIERS FOR ARCHAEOLOGICAL AND ARCHIVAL REHABILITATION SUPPLIES

Archival Supplies

Archivart
7 Caesar Place
Moonachie, NJ 07074
(215) 238-9952
POC: Abby Shaw

Conservation Materials, Ltd
12275 Kleppe Lane, #10
Sparks, NV 89431
(702) 331-0582

Conservation Resources
International, Inc.
8000-H Forbes Place
Springfield, VA 22151
(800) 634-6932

Gaylord Brothers
P.O. Box 4901
Syracuse, NY 13221-4901
(800) 448-6160

The Hollinger Corporation
P.O. Box 8360
Fredericksburg, VA 22404
(800) 634-0491

Light Impressions
439 Monroe Avenue
Rochester, NY 14607-3717
(800) 828-6216

University Products
517 Main Street
P.O. Box 101
Holyoke, MA 01041-0101
(800) 628-1912

Talas
213 West 35th St. and 7th Ave.
New York, NY 10001
(212) 736-7744

Scientific Equipment

Bel-Art Products
Pequannock, NJ 07440-1992
(201) 694-0500

Cole-Palmer
7425 North Oak Park Avenue
Chicago, IL 60648
(800) 323-4340

Henry Schein Inc.
5 Harbor Park Drive
Port Washington, NY 11050
((800) 372-4346

Fisher Scientific
1241 Ambassador Blvd.
St. Louis, MO 63132
(314) 991-2400

VWR Scientific
P.O. Box 66029
O'Hare AMF
Chicago, IL 60666
(800) 932-5000

Polyethelene Foam Products

Ethafoam:

DOW Chemical
Functional Products and Systems Group
2020 Dow Center
Midland, MI 48640

Volara:

Volteck
550 Stephenson Highway
Suite 300
Troy, MI 48093
(313) 589-1275

Microfoam:

E.I. DuPont De Nemours & Co., Inc.
PPD Dept. Microfoam
CSC Building
Chestnut Run
Wilmington, DE 19868
(302) 999-3569

Plastics

BrownCor International
400 S. 5th Street
P.O. Box 04499
Milwaukee, WI 53204
(414) 271-8887

Consolidated Plastics Company, Inc.
8181 Darrow Road
Twinsburg, OH 44087
(800) 362-1000

Chiswick Trading, Inc.
33 Union Avenue
Sudbury, MA 01776-2246
(800) 225-8708

Read Plastics
12331 Wilkins Avenue
Rockville, MD 20852
(800) 638-6651

Shelving & Cabinetry

Crystallization Systems, Inc.
1595A Ocean Avenue
Bohemia, NY 11716
(516) 567-0888

Interior Steel
2352 East 59th Street
Cleveland, OH 44104
(216) 881-0100

Delta Designs Limited
2800 NE Center Avenue
Topeka, KS 66616
(913) 234-2244

or

285 Emmett Street
Newark, NJ 07114
(201) 242-6600

Bulk Storage

C&H Distributors, Inc.
400 S. 5th Street
P.O. Box 04499
Milwaukee, WI 53204
(414) 271-2250

InterMetro Industries Corporation
70 Bradrock Drive
Des Plaines, IL 60018
(708) 298-2424

Global Industrial Equipment
6675 Hemlock Drive
Hempstead, NY 11550
(800) 645-1232

Steel Fixture Manufacturing Company
612 SE 7th Street
P.O. Box 917
Topeka, KS 66601
(913) 233-8911

Hecker Company, Inc.
P.O. Box 46828
Philadelphia, PA 19140
(215) 423-9340

Flat File Cabinetry

Foster Manufacturing Company
414 North 13th Street
Philadelphia, PA 19108
(800) 523-4855

Mayline/Hamilton
The Mayline Company
619 N. Commerce Street
P.O. Box 728
Sheboygan, WI 53082-0728
(414) 457-5537

Safety Equipment

Fisher Scientific Safety Products
Reference Manual
1241 Ambassador Boulevard
St. Louis, MO 63121
(314) 991-2400

Lab Safety Supply Inc.
P.O. Box 1368
Janesville, WI 53547-1368
(800) 356-0783

APPENDIX VII

GLOSSARY

Accessioning is the process of formally accepting and establishing permanent legal title (ownership) and/or custody for artifacts and/or associated records.

Archival quality indicates materials that have been manufactured of inert materials specifically designed to extend the life of artifacts and records by protecting them from agents of deterioration.

Arrangement is the process and results of organizing archives, records, and manuscripts in accordance with accepted archival principles, particularly provenance, at as many as necessary of the following levels: repository, record group, subgroup, series, file unit, and document.

Associated records/associated documentation are all original records (or copies thereof) that have been prepared and/or assembled in the efforts to locate, evaluate, record, study, preserve, or recover prehistoric or historic resources.

Cartographic records are archival records that contain information in graphic or photogrammetric form of a portion of a linear surface (e.g., maps).

Cataloging is the process of assigning and applying a unique identifying number to an object and completing written documentation of this process.

Collections are material remains that have been excavated or removed during a survey, excavation, or other study of prehistoric or historic resources. Collections also include associated records that are prepared or assembled during the survey, excavation, or other study.

A **copy** is a reproduction of the contents of an original document.

Curation is the long-term, professional management and care of all objects, materials, and records recovered as the result of a Federal or non-Federal archaeological undertaking.

Curatorial services manage and preserve collections according to professional museum and archival practices.

Deaccession is the formal procedure whereby objects or records are permanently removed from a repository's holdings.

Field-curation guidelines are a set of formal procedures and protocols which outline how artifacts and records are to be treated following field excavation.

Finding aids are the descriptive media, published and unpublished, created by an originating office, an archival agency, or manuscript repository to establish physical or administrative and intellectual control over records and other holdings.

Holdings are the total accessions and deposits of a repository.

Integrated pest management is the selection, integration, and implementation of pest management methods based on predicted economic, ecological, and sociological variables. IPM can also be defined as a decision-making process that helps one decide if a treatment is necessary and appropriate, where the treatment should be administered, when treatment should be applied, and what strategies should be integrated for immediate and long-term results.

Inventory is the process of creating and maintaining a contemporaneous record of all objects for which a repository is responsible. An inventory is also an itemized listing of objects.

A **loan** is the temporary transfer of objects from a repository to a museum or other repository. These transfers do not involve a change in ownership.

Machine-readable records are archives and records, whose informational content is usually in code, that have been (1) recorded on media such as magnetic discs, drums, tapes, punched paper cards, or punched paper tapes and (2) are accompanied by finding aids known as software documentation. Coded information is retrievable only by machine.

Material remains are artifacts, objects, specimens, and other physical evidence that are excavated or removed in connection with efforts to locate, evaluate, document, study, preserve, or recover prehistoric or historic resources.

Minimum standards for acceptance are a set of formal procedures and protocols which outline what basic stabilization steps must be performed before a repository will accept an archaeological collection for curation.

Pests are organisms that can cause damage to collections or interfere with human objectives for a controlled environment.

Preservation is the basic responsibility to provide adequate facilities for the protection, care, and maintenance of records and artifacts.

Primary containers are the largest receptacle in which collections are placed.

Processing, in archival work, is the act of arranging, describing, and preserving a collection of documentation.

Provenance is the information of successive transfers of ownership and custody of a particular manuscript or document collection.

Provenience is the specific location, in either two-dimension or three-dimension space, where an object was originally collected, where a site is located, or where an archaeological collection was made.

Qualified museum professionals are persons who possess the knowledge, experience, and demonstrable competence in museum methods and techniques that (1) are appropriate to the nature and content of the collections under the person's management and care and (2) are commensurate with the person's duties and responsibilities.

Records management is that area of general administrative management concerned with achieving economy and efficiency in the creation, use and maintenance, and disposition of records.

Registration is the overall procedures for officially recording and monitoring object transaction--e.g., acquisition, accession, loan, movement, care, shipment, and deaccession.

Relative humidity is the relation between the air's water content and its temperature. Stated as a percentage, relative humidity relates the moisture content of the air being measured to the amount of water vapor it could hold at saturation, assuming that there is no change in temperature.

A **repository** is a facility such as a museum, archaeological center, laboratory, or storage facility that is managed by a university, college, museum, other educational or scientific institution, a Federal, State, or local Government agency, or Indian tribe that can provide professional, systematic, and accountable curatorial services on a long-term basis.

Retention/disposition schedule is a document that governs, on a continuing basis, the retention and disposition of the recurring records series of an organization or agency.

Secondary containers are the largest receptacles in which collections are housed within a primary container.

Site-record administration is the system by which prehistoric and historic archaeological resources are organized and maintained.

Sticky traps are passive insect or rodent traps that consist of cardboard with an adhesive layer.

Telescoping lids are box lids that are separate pieces of cardboard and are not attached to the box in any manner. These lids may be removed by lifting them off of the box.

Type Specimens are the unique natural or cultural items—used as the basis for the original description of a biological taxon or an archaeological material group—that function as standards for the assignment of a scientific name to that particular specimen.

APPENDIX VIII

SAMPLE MEMORANDUMS OF UNDERSTANDING FOR CURATORIAL SERVICES

Example of a Memorandum of Understanding for Curatorial Services Between The

(Name of the Federal Agency)

And The

(Name of the Repository)

This Memorandum of Understanding is entered into this (day) of (Month and Year), between the United States of America, acting by and through the (name of the Federal agency), hereinafter called the Depositor, and the (name of the Repository), hereinafter called the Repository, in the State of (name of the State).

The parties do witnesseth that,

WHEREAS, the Depositor has the responsibility under Federal law to preserve for future use certain collections of archaeological artifacts, specimens and associated records, herein called the Collection, listed in Attachment A which is attached hereto and made a part hereof, and is desirous of obtaining curatorial services; and

WHEREAS, the Repository is desirous of obtaining and maintaining the Collection, and recognizes the benefits which will accrue to it, the public and scientific interests by housing and maintaining the Collection for study and other educational purposes; and

WHEREAS, the Parties hereto recognize the Federal Government's continued ownership and control over the Collection and any other U.S. Government-owned personal property, listed in Attachment B which is attached hereto and made a part hereof, provided to the Repository, and the Federal Government's responsibility to ensure that the Collection is suitably managed and preserved for the public good; and

WHEREAS, the Parties hereto recognize the mutual benefits to be derived by having the Collection suitably housed and maintained by the Repository;

NOW THEREFORE, the Parties do mutually agree as follows:

1. The Repository shall:

a. Provide for the professional care and management of the Collection from the (names of the prehistoric and historic resources) sites, assign (list site numbers) site numbers. The collections were recovered in connection with the (name of the Federal or federally-authorized project) project, located in (name of the nearest city or town), (name of the county) county, in the State of (name of the State).

b. Perform all work necessary to protect the Collection in accordance with the regulation 36 CFR Part 79 for the Curation of Federally-Owned and Administered Archaeological Collections and the terms and conditions stipulated in Attachment C to this memorandum.

c. Assign as the Curator, the Collections Manager and the Conservator having responsibility for the work under this Memorandum who are qualified museum professionals and whose expertise is appropriate to the nature and content of the Collection.

d. Begin all work on or about (month, date and year) and continue for a period of (number of years) years or until terminated or revoked in accordance with the terms set forth herein.

e. Provide and maintain a repository facility having requisite equipment, space and adequate safeguards for the physical security and controlled environment for the Collection and any other U.S. Government-owned personal property in the possession of the Repository.

f. Not in any way adversely alter or deface any of the Collection except as may be absolutely necessary in the course of stabilization, conservation, scientific study, analysis and research. Any activity that will involve the intentional destruction of any of the Collection must be approved in advance and in writing by the Depositor.

g. Annually inspect the facilities, the Collection and any other U.S. Government-owned personal property. Every (number of years) years inventory the Collection and any other U.S. Government-owned personal property. Perform only those conservation treatments as are absolutely necessary to ensure the physical stability and integrity of the Collection, and report the results of all inventories, inspections and treatments to the Depositor.

h. Within five (5) days of discovery, report all instances of and circumstances surrounding loss of, deterioration and damage to, or destruction of the Collection and any other U.S. Government-owned personal property to the Depositor, and those actions taken to stabilize the Collection and to correct any deficiencies that may have contributed to the loss, deterioration, damage or destruction. Any actions that will involve the repair and restoration of any of the Collection and any other U.S. Government-owned personal property must be approved in advance and in writing by the Depositor.

i. Review and approve or deny requests for access to or short-term loan of the Collection (or a part thereof) for scientific, educational or religious uses in accordance with the regulation 36 CFR Part 79 for the Curation of Federally-Owned and Administered Archaeological Collections and the terms and conditions stipulated in Attachment C to this Memorandum. In addition, refer requests for consumptive uses of the Collection (or a part thereof) to the Depositor for approval or denial.

j. Not mortgage, pledge, assign, repatriate, transfer, exchange, give, sublet, discard or part with possession of any of the Collection or any other U.S. Government-owned personal property in any manner to any third party either directly or indirectly without the prior written permission of the Depository, and redirect any such request to the Depositor for response. In addition, not take any action whereby any of the Collection or any other U.S. Government-owned personal property shall or may be encumbered, seized, taken in execution, sold, attached, lost, stolen, destroyed or damaged.

2. The Depositor shall:

a. On or about (month, date and year), deliver or cause to be delivered to the Repository the Collection, as described in Attachment A, and any other U.S. Government-owned personal property, as described in Attachment B.

b. Assign as the Depositor's Representative having full authority with regard to this Memorandum, a person who meets pertinent professional qualifications.

c. Every (number of years) years, jointly with the Repository's designated representative, have the Depositor's Representative inspect and inventory the Collection and any other U. S. Government-owned personal property, and inspect the repository facility.

d. Review and approve or deny requests for consumptively using the Collection (or a part thereof).

3. Removal of all or any portion of the Collection from the premises of the Repository for scientific, educational or religious purposes may be allowed only in accordance with the regulation 36 CFR Part 79 for the Curation of Federally-Owned and Administered Archaeological Collections; the terms and conditions stipulated in Attachment C to this Memorandum; any conditions for handling, packaging and transporting the Collection; and other conditions that may be specified by the Repository to prevent breakage, deterioration and contamination.

4. The Collection or portions thereof may be exhibited, photographed or otherwise reproduced and studied in accordance with the terms and conditions stipulated in Attachment C to this Memorandum. All exhibits, reproductions and studies shall credit the Depositor, and read as follows: "Courtesy of the (name of the Federal agency)." The Repository agrees to provide the Depositor with copies of any resulting publications.

5. The Repository shall maintain complete and accurate records of the Collection and any other U.S. Government-owned personal property, including information on the study, use, loan and location of said Collection which has been removed from the premises of the Repository.
6. Upon execution by both parties, this Memorandum of Understanding shall be effective on this (day) day of (month and year), and shall remain in effect for (number of years) years, at which time it will be reviewed, revised, as necessary, and reaffirmed or terminated. This Memorandum may be revised or extended by mutual consent of both parties, or by issuance of a written amendment signed and dated by both parties. Either party may terminate this Memorandum by provided 90 days written notice. Upon termination, the Repository shall return such Collection and any other U.S. Government-owned personal property to the destination directed by the Depository and in such manner to preclude breakage, loss, deterioration and contamination during handling, packaging and shipping, and in accordance with other conditions specified in writing by the Depositor. If the Repository terminates, or is in default of, this Memorandum, the Repository shall fund the packaging and transportation costs. If the Depositor terminates this Memorandum, the Depositor shall fund the packaging and transportation costs.
7. Title to the Collection being cared for and maintained under this Memorandum lies with the Federal Government.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum.

Signed: (signature of the Federal Agency Official)

Date: (date)

Signed (signature of the Repository Official)

Date: (date)

Attachment A: Inventory of the Collections

Attachment B: Inventory of any other U.S. Government-owned Personal Property

Attachment C: Terms and Conditions Required by the Depositor.

**Cooperative Agreement
Between the
U.S. Army Corps of Engineers
and the
State of Illinois**

I. PURPOSE

The purpose of this Cooperative Agreement is to specify arrangements under which the U.S. Army Corps of Engineers and the state of Illinois will cooperate to implement a program to house, manage, stabilize, preserve, and provide access to archaeological collections and records generated in conjunction with Corps of Engineers activities in the state of Illinois.

II. PARTIES

The parties to this Cooperative Agreement are the U.S. Army Corps of Engineers represented by the District Engineers, St. Louis District (hereinafter "Corps"), and the state of Illinois represented by the Department of Energy and Natural Resources through its division, the Illinois State Museum (hereinafter "ISM"), and the Illinois State Museum Society (hereinafter "ISMS").

III. AUTHORITY

This Cooperative Agreement is executed by the parties hereto pursuant to the following authorities: The Reservoir Salvage Act of 1960, as amended (P.L. 86-523; 74 Stat. 220, 88 Stat. 174; 16 U.S.C. 469 et seq.); the National Historic Preservation Act of 1966, as amended (P.L. 89-665; 80 Stat. 915; 16 U.S.C. 470 et seq.); the National Environmental Policy Act of 1969 (P.L. 91-190; 83 Stat. 852; 42 U.S.C. 4321 et seq.); the Archaeological Resources Protection Act of 1979, as amended (P.L. 100-588; 102 Stat. 29883; 16 U.S.C. 470aa-470mm); the Abandoned Shipwreck Act of 1987 (P.L. 100-298; 102 Stat. 432; 43 U.S.C. 2101 et seq.); 36 CFR Part 79 "Curation of Federally-Owned and Administered Archaeological Collections"; ER 1130-2-433; ER 200-2-2; ER 1105-2-100; ER 1130-2-438; ER 1165-2-131.

IV DEFINITIONS

For the purpose of this agreement, the following definitions are applicable.

A. Associated Records refer to original records (or copies thereof) that are prepared or assembled and document efforts to locate, evaluate, record, study, preserve or recover materials from a prehistoric or historic resource. Some records such as field notes, artifact inventories and oral histories may be originals that are prepared as a result of the field work, analysis and report preparation. Other records such as deeds, survey plats, historical maps and diaries may be copies of original public or archival documents that are assembled and studied for historical research. Classes of associated records (and illustrative examples) that may be in a collection include, but are not limited to:

1. Records relating to the identification, evaluation, documentation, study, preservation or recovery of a resource (such as site forms, field notes, drawings, maps, photographs, slides, negatives, films, video and audio cassette tapes, oral histories, computer disks and diskettes, printouts of computerized data, manuscripts, reports, and accession, catalog and inventory records);
2. Records relating to the identification of a resources using remote sensing methods and equipment (such as satellite and aerial photography and imagery, side scan sonar, magnetometer, subbottom profilers, radar and fathometers);
3. Public records essential to understanding the resource (such as deeds, survey plats, military and census records, birth, marriage and death certificates, immigration and naturalization papers, tax forms and reports);
4. Archival records essential to understanding the resource (such as historical maps, drawings and photographs, manuscripts, architectural and landscape plans, correspondence, diaries, ledgers, catalogs and receipts); and
5. Administrative records relating to the survey, excavation or other study of the resource (such as scopes of work, requests for proposals, research proposals, contracts, antiquities permits, reports, documents relating to compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and National Register of Historic Places nomination and associated forms.

B. A collection is composed of material remains and associated records. Specifically it refers to the composite of all material remains that are excavated or removed during a survey, excavation or other study of a prehistoric or historic resource, as well as the associated records that are prepared or assembled in connection with the study.

C. Curation and Collections Management refers to those curatorial services such as processing, cataloging, and accessioning, as well as application of specialized techniques necessary for conserving and maintaining collections and their associated records. This includes, but may not be limited to:

1. Handling, cleaning, stabilizing, and conserving a collection in such a manner to preserve it;
2. Inventorying, accessioning, labeling and cataloging a collection;
3. Identifying, evaluating and documenting a collection;
4. Storing and maintaining a collection using appropriate methods, containers, environmental conditions and physically secure controls;

5. Periodically inspecting a collection and taking such actions as may be necessary to preserve it; and

6. Providing access and facilities to study a collection.

D. Collections Management Center refers to any qualified facility where cultural materials and their associated records are curated, maintained and made accessible for educational, interpretive, scientific, and religious purposes.

E. Collections Management Professional refers to a person who possesses knowledge, experience, and demonstrable competence in methods and techniques appropriate to the nature and content of the collections under the person's management and care.

F. Initial processing refers to collection management functions and activities leading up to, and including, the placement of a collection and its associated documentation into a management center. Such activities include, but are not limited to, cleaning; sorting; stabilizing; packaging; cataloging; inventorying; accessioning; and the acquisition of all necessary supplies and materials.

G. Material remains means artifacts, objects, specimens and other physical evidence that are excavated or removed in connection with efforts to locate, evaluate, document, study, preserve or recover a prehistoric or historic resource. Classes of material remains (and illustrative examples) in collections include, but are not limited to:

1. Components of structures and features;
2. intact or fragmentary artifacts of human manufacture;
3. intact or fragmentary natural objects used by humans;
4. by-products, waste products or debris resulting from the manufacture or use of man-made or natural materials;
5. organic materials;
6. human remains;
7. components of petroglyphs, pictographs, intaglios or other works of artistic or symbolic representation;
8. components of shipwrecks;
9. environmental and chronometric specimens; and
10. paleontological specimens that are found in direct physical relationship with a prehistoric or historic resource.

V. COOPERATION

In consideration of the above premises, the parties hereto agree as follows:

A. General. The Federal Laws cited in Article III above establish the requirement that significant prehistoric and historic artifacts and associated records (collections) acquired pursuant to Federal recovery mandates must be appropriately curated by deposit in a collections management center possessing adequate long-term curatorial capabilities. The cited laws mandate this responsibility to Federal agencies to provide for the use of these archaeological and historic collections in a controlled manner for education, scientific study, and public interpretation.

B. The St. Louis District, Corps of Engineers:

1. The Corps and individuals issued Corps historic properties contracts in the state of Illinois will use the ISM for the long-term curation of archaeological collections and associated records.
2. All archaeological collections and associated records submitted to the ISM by a contractor will conform to the standards of the Corps (standards are attached as Appendix A).
3. Archaeological collections will be submitted by the contractor (the party to the cultural resource contract) directly to the ISM.
4. Prior to submission to the ISM, archaeological collections shall be subject to inspection by the District Engineer or his designated representative.
5. Following this inspection, it is the responsibility of the contractor to deposit the collections at the ISM.
6. The Corps will notify the Director of the ISM upon award of a contract for the recovery of archaeological materials in conjunction with Corps activities in the state of Illinois. Within thirty (30) days of this notification, the contractor will submit a schedule to the District Engineer, or his designated representative, outlining the curation schedule the contractor has arranged with the ISM.
7. The District Engineer, or his designated representative, will inspect the ISM at least once a year. The Corps will provide sixty (60) days notice to the Director of the ISM to arrange a mutually beneficial time period for the inspection. This inspection is to ensure that the collections management center and curatorial standards, as cited in 36 CFR Part 79 (specifically 79.4-79.9) published in the Federal Register, vol. 52, No. 167, August 28, 1987 (see Appendix B) and St. Louis District Standards for Collections Management Centers (see Appendix C). Within thirty (30) days of this inspection, the District Engineer, or his designated representative, will provide the ISM with a written report detailing the results of the inspection. Non-compliance with standards set forth in Appendices B and C will be addressed and the ISM will

be given thirty (30) days in which to develop a plan of action to correct any violations. Failure to correct any violations will be cause to terminate this agreement.

C. The Illinois State Museum:

1. Agrees to maintain an Archaeological Collections Management Center for the long-term curation of Corps archaeological and historic collections and the associated records within the state of Illinois.

2. Agrees to provide for the long-term curation and management of Corps archaeological collections and associated records in accordance with Federal standards outlined in proposed 36 CFR Part 79 (specifically 79.5, 79.6, and 79.9) ER 1130-2-433, St. Louis District Standards for Collections Management Centers (Appendices B, C, and D), and to the satisfaction of the District Engineer.

3. Will accept custody of Corps archaeological collections and associated records in perpetuity or other fixed period of time.

4. Within the state of Illinois, the ISM agrees to construct a periodic museum exhibit at each District lake in consultation with the lake interpretive staff using relevant Corps collections to illustrate the prehistory and history of the region. The proposed cost of exhibit design will be submitted to the District Engineer and the lake interpretive staff on the anniversary date of execution of this agreement each year the agreement is in effect. Within sixty (60) days' receipt of the cost estimate the District Engineer, or his designated representative, will inform the Director of ISM of the Corps' decision regarding funding of said museum exhibits. Funding for this component of the agreement will come from the St. Louis District's interpretive program. The ISM also agrees to present two (2) public lectures at each District lake in Illinois which discusses the archaeological history of the region. A schedule for said programs shall be developed in consultation with the lake supervisors and the Historic Properties staff and provided to the District Engineer on the anniversary date of execution of this agreement each year the agreement is in effect. Within sixty (60) days' receipt of the cost estimate the District Engineer, or his designated representative, will inform the Director of ISM of the Corps' decision regarding funding of said lecture programs.

5. Agrees to arrange for the loan or display of all or part of a collection on request of qualified agencies, organizations, institutions, or individuals having adequate facilities for study or display only after written consultation with the District Engineer or his designated representative. The individual or agency requesting a collection is obligated to pay all fees associated with the loan of said collection.

6. Agrees to report any loss or damage to archaeological collections and associated records to the District Engineer within seven (7) days of discovery of the loss or damage.

7. Assures that curatorial services furnished pursuant to the Cooperative Agreement conform to the standards set forth in Appendices A, B, C, D, F, and G. It is understood that standards furnished in Appendices A, C, F and G shall be updated by the Corps as needed to reflect the "state of the art" in the field of curation of archaeological collections.

D. The Illinois State Museum Society:

1. The Illinois State Museum Society, a not-for-profit organization, will serve as contractor to rehabilitate and otherwise prepare for curation the U.S. Army Corps of Engineers, St. Louis District archaeology collections.

2. Agrees to inspect, inventory, accession, and upgrade the archaeological collections and associated records which are submitted by the Corps to ensure the materials and records meet St. Louis District Curation Standards presented in Appendix A. Following June 1990 all collections and associated records submitted by Corps contractors to the ISMS which are not in the proper condition are to be returned to the contractor, by the ISMS along with a list of actions necessary to prepare the materials or records for long-term curation.

3. Agrees to develop and provide a computer-assisted collections management retrieval system within three (3) years of initiation of the agreement that will allow the Corps, and other qualified individuals and institutions, access for study, loan, education, or public interpretation of said collections. The retrieval system will be updated as new collections are added. It is also understood that the retrieval system will be modified upon mutual consent of the Corps and ISMS. The format for this retrieval system is included in Appendix F.

4. Agrees to regularly monitor the collections and associated records and provide an annual catalogue of such conservation treatments as are needed to ensure physical stability and integrity in perpetuity. A schedule for such monitoring will be provided to the District Engineer on the anniversary date of execution of this agreement. Additionally, a catalogue of recommended conservation treatments organized on the basis of individual archaeological collections will be provided to the District Engineer on the anniversary date of execution of this agreement. This catalogue will be updated each year the agreement is in effect.

5. During the first year of this agreement, the ISMS agrees to inspect all collections and prepare a report which inventories and evaluates the condition of each collection. This inventory/evaluation report will be delivered to the District Engineer one (1) year following approval of this Cooperative Agreement. The report will contain an overview of the condition of each collection according to the St. Louis District, Procedures for Inventory and Evaluation of Existing Collections (see Appendix G), as well as recommendations, including a budget, detailing the status and costs associated with rehabilitating each collection. The budget to accomplish this work is contained in Appendix E and represent the monies allocated for years 2-5 (FY 92 - FY 95). Within thirty (30) days of receipt of the report, the District Engineer, or his designated representative, will inform the Executive Secretary of the ISMS of the Corps' findings regarding the ISMS evaluation recommendations.

6. The ISMS will use the monies provided by the Corps only for the express

purpose of rehabilitating, managing, and providing for the retrieval of Federal (Corps) artifacts.

E. Special Provisions:

1. Archaeological collections and associated records removed from public land remain the property of the United States even though they are curated in a state institution. The ISM will not dispose of any Corps archaeological collections or associated records without the written authorization of the District Engineer.

2. ISM is responsible for transferring archaeological collections and associated records to a facility approved by the District Engineer in the event that the ISM is closed.

3. Human skeletal remains will not be made available for public display.

4. The Historic Properties staff from the Corps and the ISM will meet as needed to review the curation standards presented in the various appendices and prepare necessary changes to the satisfaction of the District Engineer, or his designated representative.

VI. PAYMENT

Pending receipt of operations and maintenance general funds, the Corps will pay the ISMS the amounts agreed to (see Appendix E) as representing rehabilitation, and annual maintenance curation costs associated with processing, conservation, and management of archaeological collections and associated records. The sums agreed upon for rehabilitation curation costs are \$50,000 per annum, payable quarterly starting in FY 91 and ending in FY 95. In FY 94 a contract for annual maintenance of Corps' collections will be drafted by the Corps. This contract will commence in FY 96 and be renegotiated every three (3) years.

VII. ACCOUNTING RECORDS

Insofar as it is practicable, the ISMS will maintain bookkeeping records of Corps funds received for individual collections. In addition, the ISMS will maintain books, records, documents, and other evidence pertaining to costs and expenses incurred under this Cooperative Agreement, to the extent and in such detail as will properly reflect all net costs, direct and indirect, of labor, materials, equipment, supplies, services, and other costs and expenses of whatever nature involved therein. The ISMS will make available at its office at reasonable times said accounting records for inspection and audit by an authorized representative of the Corps.

VIII. DISPUTES

Any disputes between the parties arising under this Cooperative Agreement will be decided by the Corps District Engineer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the ISM. The decision of the St. Louis District Engineer shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, ISM mails or otherwise furnished to the Corps a written appeal addressed to the Corps, LMVD Division

Engineer. The decision of the Division Engineer will be the final and conclusive administrative decision of the dispute. In connection with any appeal proceeding under this clause, ISM shall be afforded an opportunity to be heard and offer evidence in support of its appeal. Pending final decision of a dispute hereunder, ISM will proceed diligently with the performance of all tasks identified and agreed to be undertaken pursuant to this Cooperative Agreement and in accordance with the decision of the District Engineer. Recourse to judicial process shall not be precluded following the final decision of the Division Engineer.

IX. COVENANT AGAINST CONTINGENT FEES

The ISM warrants that no person or selling agency has been employed or retained to solicit or secure this Cooperative Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee. For breach or violation of this warranty, the Government shall have the right to annul this Cooperative Agreement without liability.

X. RELATIONSHIP OF PARTIES

The parties to this Cooperative Agreement act in their independent capacities in the performance of their respective functions under it, and no party is to be considered the officer, agent, or employee of the other.

XI. DURATION

A. This Cooperative Agreement will continue in full force and effect unless terminated by any party hereto on providing ninety (90) days advance written notice to the others.

B. It is understood and agreed that termination of this Agreement by any party for whatever reason will not end the obligation of ISM to curate in perpetuity those archaeological materials already accepted.

XII. AMENDMENT

This Cooperative Agreement may be amended at any time by mutual agreement of the parties.

XIII. EFFECTIVE DATE

This Cooperative Agreement shall take effect upon the date of execution by the District Engineer, St. Louis District.

Dated this ____ day of _____, 199_.

STATE OF ILLINOIS

CORPS OF ENGINEERS

Director, ENR

District Engineer

ILLINOIS STATE MUSEUM

ILLINOIS STATE MUSEUM SOCIETY

Director, ISM

Executive Secretary, ISMS

Appendices:

A—St. Louis District Curation Standards

B—36 CFR Part 79

C—St. Louis District Standards for Collections Management Centers

D—ER 1130-2-433

E—Budget: Years 1 - 5 (FY 91 - FY 95)

F—St. Louis District Collections Management Retrieval Format

G—St. Louis District Procedures for Inventory and Evaluation of Existing Collections

APPENDIX IX

HEADQUARTERS, AIR MOBILITY COMMAND NAGPRA SUMMARY LETTER

CELMS-PD-AC (1105)

29 October 1993

MEMORANDUM FOR Robin Burgess, United State Air Force, HQ AMC/CEVP,
Scott Air Force Base, IL 62225-5022

SUBJECT: Status of Curation Needs Assessments for AMC Base Archaeological Collections;
and NAGPRA Summary Information

1. My staff has completed the initial evaluation of records and archaeological collections at the thirteen Air Mobility Command (AMC) bases agreed upon in our scope of work. The following summation will enable AMC to fulfill its obligations as directed by the Native American Graves Protection and Repatriation Act (Public Law 101-106) and also serves as a progress report for this project.
2. The first stage of this project consisted of a national literature search for the thirteen AMC bases. This information will be compiled into a master bibliography and included in the final report.
3. Next, my staff contacted each base to ascertain if any artifacts had been collected, or if any associated documentation had been generated. Only three bases had archaeological collections: Travis Air Force Base in California; Charleston Air Force Base in South Carolina; and Dover Air Force Base in Delaware. Two additional bases had archival collections of associated documentation: Malmstrom Air Force Base in Montana and Scott Air Force Base in Illinois.
4. St. Louis personnel then contacted the State Historic Preservation Offices (SHPO) in an effort to conduct records file searches. Most of these offices do not have the staff to devote to research requests, so the proper procedure for each office was noted. A list of these procedures and the person to contact at each SHPO will be included in the final report. It is our recommendation that file searches be undertaken. However, additional funds are needed to support such an effort. The TCX can provide an estimate, if AMC so desires.
5. Finally, St. Louis personnel visited each of the three bases which had archaeological collections and conducted Curation Needs Assessments at each base and the repositories housing the collections. The findings are summarized as follows:

- a. Travis Air Force Base, California: There are two prehistoric collections from this

AMC base. Both collections are currently curated at Sonoma State University in Rohnert Park, California.

b. Charleston Air Force Base/North Auxiliary Field, South Carolina: There is only one collection from this AMC base. The collection consists of both historic and prehistoric materials and is currently curated at the South Carolina Institute of Archaeology and Anthropology.

c. Dover Air Force Base, Delaware: There are five collections from Dover Air Force Base property. One prehistoric collection is kept on base. A mixed collection of both prehistoric and historic artifacts is curated at the University of Delaware Center for Archaeological Research in Newark. The Island Field facility is curating two collections, one mixed collection and one prehistoric collection. Finally, Maar Associates in Newark are holding one mixed collection. These materials will be transferred to the Island Field Museum upon completion of their contract with AMC.

6. For temporary curation needs we recommend the materials at Sonoma State University and at the South Carolina Institute of Archaeology and Anthropology remain at those repositories. In the case of Dover's materials, we recommend all materials be deposited at the Island Field facility for temporary curation. We recommend that all archaeological collections and associated documentation be eventually consolidated into a central curation facility, preferably managed by DoD personnel, that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations.

7. The Native American Graves Protection and Repatriation Act addresses several categories of archaeological artifacts. These categories include human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony. None of the AMC bases evaluated during this project possess any items listed in these categories.

8. The St. Louis District has completed the bulk of the Curation Needs Assessments for this project. We anticipate the final report to be completed by 30 May 1994.

9. If you have any questions concerning the project, please contact me at (314) 331-8466, or call Natalie Drew at (314) 331-8819.

MICHAEL K. TRIMBLE, Ph.D.
Chief, Curation and Archives
Analysis Section